Appendix F

Air Quality and Greenhouse Gas Assessment

Air Quality and Greenhouse Gas Assessment

Bonanza Peak Energy Project

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Air Quality and Greenhouse Gas Assessment

Bonanza Peak Energy Project

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CONTENTS

1. INTRODUCTION 1

2. AIR QUALITY 1

2.1 EXISTING CONDITIONS 1
- 2.1.1 Climate 2
- 2.1.2 Criteria Air Pollutants 2
- 2.1.3 Toxic Air Contaminants 3
- 2.1.4 Local Air Quality 3
- 2.1.5 Sensitive Receptors 6

2.2 REGULATORY SETTING 7
- 2.2.1 Federal 7
- 2.2.2 State 7
- 2.2.3 Local 8

2.3 METHODOLOGY 9
- 2.3.1 Construction and Operational Emissions 9
- 2.3.2 Health Risk Assessment 11

2.4 IMPACT EVALUATION 12

2.5 AIR QUALITY MITIGATION MEASURES 15
- 2.5.1 MM AQ-1: Prepare Project-specific air quality technical report (Complete) 16
- 2.5.2 MM AQ-2: Reduce fugitive dust and particulate matter emissions during construction (Proposed for Implementation) 16
- 2.5.3 MM AQ-3: Implement dust control measures during operation (Not Proposed For Implementation) 16

3. GREENHOUSE GAS EMISSIONS 17

3.1 ENVIRONMENTAL SETTING 17

3.2 REGULATORY SETTING 18
- 3.2.1 Federal 18
- 3.2.2 State 18
- 3.2.3 Regional 21

3.3 METHODOLOGY 22

3.4 IMPACT EVALUATION 22

4. REFERENCES 25

APPENDIX A CALEEMOD OUTPUTS

APPENDIX B EMISSION CALCULATIONS

APPENDIX C HRA SCREENING TOOL OUTPUTS

LIST OF TABLES

TABLE 1 FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS 2

TABLE 2 PROJECT LOCATION ATTAINMENT STATUS 4

TABLE 3 BACKGROUND CONCENTRATIONS AT INYO COUNTY MONITORING STATIONS 5

TABLE 4 BACKGROUND CONCENTRATIONS AT LAS VEGAS-HENDERSON-PARADISE, NV MONITORING STATIONS 6
TABLE 5 OPERATIONAL AIR POLLUTANT SIGNIFICANCE THRESHOLDS 11
TABLE 6 UNMITIGATED CONSTRUCTION EMISSIONS **ERROR! BOOKMARK NOT DEFINED.**
TABLE 7 ESTIMATED OPERATIONAL EMISSIONS 14
TABLE 8 PROJECT HEALTH RISK SCREENING RESULTS 14
TABLE 9 ESTIMATED GREENHOUSE GAS EMISSIONS DURING CONSTRUCTION 23
TABLE 10 ESTIMATED ANNUAL OPERATIONAL GREENHOUSE GAS EMISSIONS 24

ACRONYMS AND ABBREVIATIONS

Acronym	Description
°C	degrees Celsius
°F	degrees Fahrenheit
μg/m^3	micrograms per cubic meter
AB	Assembly Bill
AEP	Association of Environmental Professionals
APS	Alternative Planning Strategy
ATCM	Airborne Toxic Control Measures
Basin	Great Basin Valleys Air Basin
CAA	Clean Air Act
CalEEMod	California Emissions Estimator Model
Cal EPA	California Environmental Protection Agency
CARB	California Air Resources Board
CAT	Climate Action Team
CEQA	California Environmental Quality Act
CO	carbon monoxide
DPM	diesel particulate matter
EIR	Environmental Impact Report
ERM	Environmental Resources Management, Inc.
GBUAPCD	Great Basin Unified Air Pollution Control District
GHG	greenhouse gas
GMST	global mean surface temperature
HRA	health risk assessment
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District

Acronym	Description
MICR	Maximum Incremental Cancer Risk
MPO	Metropolitan Planning Organization
MT	metric ton
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
O_3	ozone
PM_{10}	particulate matter with an aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$	particulate matter with an aerodynamic diameter of 2.5 micrometers or less
ppb	parts per billion
ppm	parts per million
Project	Bonanza Peak Energy Project
REAT	Renewable Energy Action Team
REGPA	Renewable Energy General Plan Amendment
RPS	Renewable Portfolio Standards
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SEDA	Solar Energy Development Areas
SIP	State Implementation Plan
SO_2	sulfur dioxide
TAC	Toxic Air Contaminant
USEPA	United States Environmental Protection Agency

1. INTRODUCTION

Bonanza Peak Solar, LLC, a wholly owned subsidiary of 174 Power Global, LLC, which is a wholly owned subsidiary of Hanwha Energy USA Holdings Corp. (Applicant) requests a Renewable Energy Permit (REP) from Inyo County, California to construct, own, operate, and maintain a utility scale solar photovoltaic (PV) energy generating facility on private lands. The requested term for the REP is 50 years.

The Bonanza Peak Energy Project (Project) would be located in the Charleston View Solar Energy Development Area (SEDA) in southeastern Inyo County, adjacent to the Nevada state line just north of Old Spanish Trail Highway.

The solar generation facility, including the PV arrays, substation, and other electrical equipment, would be within a 3,382-acre Project Area with a Developed Area of no greater than 2,400 acres, as dictated by the Inyo County Renewable Energy General Plan Amendment (REGPA; Inyo County 2015). The Project has a planned net generating capacity of up to 500 megawatts (MW) alternating current.

The PV electrical generation facility includes installation of fencing, access roads, PV modules, single axis tracker racking, inverters, electrical distribution equipment, overhead and underground power lines, substation, interconnection switchyard, and an overhead transmission line racking system. While the generation tie-line corridor will continue into Nevada to the northeast, only the portion of the Project within California is considered within this scope.

Construction is anticipated to begin as early as January 2027. The Project may be built in one or more phases within an approximately 18-month construction period.

This study analyzes the air quality and greenhouse (GHG) emissions of the proposed Project. Environmental Resources Management, Inc. (ERM) prepared this study under contract to the Applicant for use by Inyo County, the lead agency (the County). The purpose of this study is to analyze the Project's air quality and GHG impacts related to both temporary construction activities and long-term operation of the Project.

2. AIR QUALITY

2.1 EXISTING CONDITIONS

The Project is located in Inyo County, which is part of the Great Basin Valleys Air Basin (Basin). The Basin is named for its geological formation of valleys surrounded by mountains. Air rises and sinks in the Basin due to the heat in the valleys and the height of the mountains that causes the air and its pollutants to settle in the valleys and basins. The Basin also includes Alpine and Mono Counties. Areas within the Basin are under the jurisdiction of the Great Basin Unified Air Pollution Control District (GBUAPCD), which regulates air pollutant emissions for all stationary sources within the Basin.

2.1.1 CLIMATE

The variable climate of the Basin is determined by its diverse terrain and geographic location. The climate of the region is greatly influenced by the Sierra Nevada and is generally semi-arid to arid, characterized by low precipitation, abundant sunshine, frequent winds, moderate to low humidity, and high potential for evapotranspiration. The average minimum winter temperature is in the high 20 degrees Fahrenheit (°F), while the average maximum summer temperature is in the mid- to high-70°F. Most precipitation occurs between November and February. Spring is the windiest season, with fast-moving northerly weather fronts. During the day, southerly winds result from the strong solar heating of the nearby mountain slopes, causing upslope circulation. Summer winds are northerly at night as a result of cool air draining from higher to lower elevations.

2.1.2 CRITERIA AIR POLLUTANTS

Air quality regulations were first promulgated with the Federal Clean Air Act (CAA) of 1970. Air quality is defined by ambient air concentrations of seven criteria air pollutants, which are a group of common air pollutants identified by the United States Environmental Protection Agency (USEPA) to be of concern with respect to the health and welfare of the general public. Federal and state governments regulate criteria air pollutants by using ambient standards based on criteria regarding the health and/or environmental effects of each pollutant. The criteria pollutants are defined as follows: nitrogen dioxide (NO_2), ozone (O_3), particulate matter (including both particulate matter with a diameter of 10 microns or less [PM_{10}] and a diameter of 2.5 microns or less [$PM_{2.5}$]), carbon monoxide (CO), sulfur dioxide (SO_2), and lead. The state and federal air quality standards for the criteria pollutants are provided in Table 1.

TABLE 1 FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	State Standard Concentration	National Standard Concentration
Ozone	1-Hour 8-hour	0.09 ppm 0.070 ppm	– 0.070 ppm
Nitrogen Dioxide	1-Hour Annual	0.180 ppm 0.030 ppm	0.100 ppm 0.053 ppm
Sulfur Dioxide	1-Hour 3-Hour 24-Hour Annual	0.25 ppm – 0.04 ppm –	0.075 ppm 0.5 ppm* 0.14 ppm 0.03 ppm
Carbon Monoxide	1-Hour 8-Hour	20 ppm 9.0 ppm	35 ppm 9 ppm
PM_{10}	24-Hour Annual	50 µg/m^3 20 µg/m^3	150 µg/m^3 –
$PM_{2.5}$	24-Hour Annual	– 12 µg/m^3	35 µg/m^3 9.0 µg/m^3
Hydrogen Sulfide	1-Hour	0.03 ppm	No federal standard
Vinyl Chloride	24-Hour	0.010 ppm	No federal standard

Pollutant	Averaging Time	State Standard Concentration	National Standard Concentration
Sulfates	24-Hour	25 µg/m^3	No federal standard
Lead	30-Day Quarterly	1.5 µg/m^3 –	– 1.5 µg/m^3

Source: California Air Resources Board 2024

Notes:
µg/m^3 = micrograms per cubic meter
PM_{10} = particulate matter with an aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 micrometers or less
ppm = parts per million
* Secondary National Standard

2.1.3 TOXIC AIR CONTAMINANTS

Toxic air contaminants (TAC) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the criteria pollutants previously discussed because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., of long duration) and acute (i.e., of severe but short duration) adverse effects on human health.

Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). In 1998, California identified DPM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Diesel engines also contribute to California's $PM_{2.5}$ air quality problems. In addition, diesel soot causes a reduction in visibility.

2.1.4 LOCAL AIR QUALITY

An area is designated in attainment when it is in compliance with the National Ambient Air Quality Standards (NAAQS) and/or California Ambient Air Quality Standards. These standards are set by the USEPA or California Air Resources Board (CARB) for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or public welfare.

The criteria pollutants of primary concern that are considered in this section include O_3, NO_2, CO, SO_2, PM_{10}, and $PM_{2.5}$. Although there are no ambient standards for volatile organic compounds or oxides of nitrogen, they are important as precursors to O_3. The attainment status for the Project location is shown in Table 2.

In February 2024, the USEPA strengthened the NAAQS for $PM_{2.5}$ to 9.0 micrograms per cubic meter (μg/m^3). The USEPA has 2 years to designate areas as in attainment or non-attainment. The air basin was in attainment with the previous standard of 12.0 μg/m^3 and in February 2025 CARB submitted their recommendations to USEPA, which included recommending the Basin as being in attainment with the new standard. The County has a federal PM_{10} nonattainment area known as Owens Valley Planning Area and a PM_{10} maintenance area known as Cosco Junction Planning Area. The Project is located to the East of these federal planning areas; it is in a federal PM_{10} attainment area. The County is nonattainment for the State O_3 standard. Because the O_3 exceedance is due to transport, there is no O_3 State implementation plan as one is not required under State law. According to the CARB Ozone Transport Review, which is a statewide assessment of O_3 transport between air basins, O_3 levels would improve in the Basin only when substantial mitigation measures are more fully implemented in upwind air basins.

TABLE 2 PROJECT LOCATION ATTAINMENT STATUS

Criteria Pollutant	Federal Standards	State Standards
Ozone - 1-hour	No federal standard	Nonattainment
Ozone - 8-hour	Attainment/Unclassified	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment
PM_{10}	Attainment	Attainment
$PM_{2.5}$	Attainment/Unclassified	Attainment
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Unclassified	Attainment
Lead (Particulate)	Attainment/Unclassified	Attainment

Source: California Air Resources Board 2023 and Great Basin Unified Air Pollution Control District 2022

Notes:

PM_{10} = particulate matter with an aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 micrometers or less

2.1.4.1 MONITORING DATA

Criteria air pollutant concentrations are currently measured at 15 monitoring stations in the Basin. The closest station that monitors O_3 is the Death Valley National Park monitoring station, which is located in the eastern portion of the County. The closest station that monitors $PM_{2.5}$ is the Keeler monitoring station. The closest monitoring station is the southernmost monitoring station, Coso Junction-US 395 station, which monitors PM_{10}. Table 3 shows pollutant levels at each applicable station. For pollutants not monitored at Inyo County monitoring stations, values were obtained from USEPA monitoring stations at the Las Vegas-Henderson-Paradise, Nevada locations as these are geographically the closest monitoring stations for CO, NO_2, and SO_2 to the Developed Area. Table 4 displays these pollutant levels.

TABLE 3 BACKGROUND CONCENTRATIONS AT INYO COUNTY MONITORING STATIONS

Pollutant	Standard	Monitoring Data by Year		
		2021	2022	2023
Ozone				
Highest 1-Hour Average, ppm		0.090	0.079	0.077
Days over State Standard	0.09 ppm	0	0	0
Highest 8-Hour Average, ppm		0.079	0.071	0.075
Days over State/National Standards	0.070 ppm	8	1	5
Fine Particulate Matter, $PM_{2.5}$				
Highest 24-Hour Average, μg/m^3		174.6	64.4	98.3
Days over National Standard	35 μg/m^3	13	3.1	7
Annual Average, μg/m^3		9.8	6.1	6.4
Exceed State/National Standards?	12 μg/m^3	No	No	No
Respirable Particulate Matter, PM_{10}				
Highest 24-Hour Average National, μg/m^3		657.0	1550.1	72.8
Measured days over National Standard	150 μg/m^3	4	1	0
Annual Average (National), μg/m^3		21.6	20.8	13.9
Exceed National Standards?	150 μg/m^3	No	No	No

Source: California Air Resources Board 2025

Notes:

μg/m^3 = micrograms per cubic meter

$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 micrometers or less

PM_{10} = particulate matter with an aerodynamic diameter of 10 micrometers or less

ppm = parts per million

TABLE 4 BACKGROUND CONCENTRATIONS AT LAS VEGAS-HENDERSON-PARADISE, NV MONITORING STATIONS

Pollutant	Standard	Monitoring Data by Year		
		2022	2023	2024
Carbon Monoxide				
Highest 1-Hour Average, ppm		2.7	2.7	2.9
Days over State/National Standard[a]	20/35 ppm	0	0	0
Highest 8-Hour Average, ppm		2.6	2.4	2.6
Days over State/National Standard[a]	9 ppm	0	0	0
Nitrogen Dioxide				
Highest 1-Hour Average State, ppb		76	68	61
Days over State/National Standard[a]	180/100 ppb	0	0	0
Annual Average, ppb		13.7	13.3	13.7
Exceed State/National Standards?[a]	30/53 ppb	No	No	No
Sulfur Dioxide				
Highest 1-Hour Average, ppm		6.6	5	14.2
Days over State/National Standard[a]	75 ppb	0	0	0
Highest 24-Hour Average, ppm		2.5	2.8	2.9
Days over State/National Standard[a]	140 ppb	0	0	0

Source: United States Environmental Protection Agency 2025

Notes:
[a]State standard values used to compare are values set by California Air Resources Board.
ppb = parts per billion
ppm = parts per million

2.1.5 SENSITIVE RECEPTORS

Sensitive receptors are people who are considered to be more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems,

proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system. The County is located in an Isolated Rural area. As such, the County has a relatively small population, with the majority of people living in small communities along US 395.

Existing sensitive receptors near the Developed Area include residences on Hall Road, 0.15 miles (approximately 800 feet) southwest of the Project, on Hall Lane, 0.40 miles (approximately 2,100 feet) south and east on Crystal Road, 0.66 miles (approximately 3,500 feet) east. The Project will be designed to confirm that solar panels, inverters, and associated Project components remain at least 500 feet from a residence on Avenue E. A few residences are also located across the California-Nevada state line and within a quarter mile outside of the SEDA boundary. There are no hospitals or other non-residence sensitive receptors within the Charleston View SEDA.

2.2 REGULATORY SETTING

2.2.1 FEDERAL

The CAA of 1970 and the CAA Amendments of 1971 required the USEPA to establish NAAQS. The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The CAA requires the USEPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States retain the option to adopt more stringent standards or to include other specific pollutants.

As part of its enforcement responsibilities, the USEPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain and maintain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution by using a combination of performance standards and market-based programs within the SIP-identified timeframe. Table 1, above, lists the current federal standards for regulated pollutants.

2.2.2 STATE

California Clean Air Act. This act established an air quality management process similar to the federal process but focused on attainment of the State ambient air quality standards, which are more stringent than the federal standards for certain pollutants. Meeting California standards is addressed by the CARB and local air pollution districts, and compliance strategies are presented in district level air quality attainment plans. Table 1, above, lists the current State standards for regulated pollutants.

California Air Resources Board Airborne Toxic Control Measures (ATCM). Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid materials and including visible emissions known as DPM, which contains carbon particles or "soot". CARB identified DPM as a TAC based on its potential to cause cancer and other health problems, such as respiratory illnesses and increased risk of heart disease. Health risks from DPM are highest in areas of concentrated emissions, and exposure to DPM is a health hazard. Private businesses and public agencies operating stationary prime and emergency standby diesel engines are subject to the ATCM. The ATCM established emission standards and fuel use requirements for new and in-use stationary engines used in prime and emergency back-up engines in non-agricultural applications and new stationary engines used in agricultural applications.

2.2.3 LOCAL

The GBUAPCD enforces regulations and administers permits governing stationary and secondary sources by limiting emissions of criteria air pollutants and TACs. The GBUAPCD has adopted rules and regulations that regulate nuisance emissions and fugitive dust emissions. The following rules would apply to the Project:

- Rule 216-A Secondary Sources: Land development and construction projects must obtain a secondary source permit prior to the start of any land-disturbing activities. The permit must be obtained prior to the grading permit or building permit being issued (whichever comes first).
- Rules 401 and 402. Fugitive Dust and Nuisance: Rule 401 requires that airborne particles remain at their place of origin under normal wind circumstances. Mitigation techniques, approved by the GBUAPCD, must be implemented to ensure the containment of fugitive dust. Rule 401 does not apply to emissions discharged through a stack (point source). Rule 402 specifies that any discharge from any source in quantities of air contaminants or other materials which may cause injury, detriment, nuisance or annoyance, or damage to any public property or considerable number of people should be regulated.

Regional Comprehensive Plan. The Basin is identified as an Isolated Rural area, which means that its emissions are not part of an emissions analysis of any metropolitan planning area or plan. Thus, there is no regional plan to guide growth and transportation in the area.

Inyo County General Plan (Inyo County 2002). Air Quality is addressed within the Public Safety Element of the General Plan 92001, as amended. Section 9.2, Air Quality, of the Public Safety Element contains the following goals and policies to protect air quality in the County:

- Goal AQ-1: Provide good air quality for Inyo County to reduce impacts to human health and the economy.
- Policy AQ-1.1: Regulations to Reduce PM_{10}. Support the implementation of the SIP and the agreement between GBUAPCD and the Los Angeles Department of Water and Power to reduce PM_{10}.
- Policy AQ-1.2: Attainment Programs. Participate in the GBUAPCD's attainment programs.
- Policy AQ-1.3: Dust Suppression During Construction. Require dust-suppression measures for grading activities.

- Policy AQ-1.4: Energy Conservation. Encourage the use of energy-conservation devices in public and private buildings.
- Policy AQ-1.5: Monitor Regional Development. Publicly object to development proposals within the region that do not adequately address and mitigate air quality impacts, especially fugitive dust.
- New Air Quality Implementation Measure, added in Renewable Energy General Plan Amendment (REGPA) (Inyo County 2015). Support appropriate efforts to combine air quality improvements with other social, cultural, and environmental goals, including renewable energy solar facility development.

2.3 METHODOLOGY

2.3.1 CONSTRUCTION AND OPERATIONAL EMISSIONS

Emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1.1.46. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Modeling outputs of Project emissions can be found in Appendix A. Modeling inputs are in Appendix B.

Per CalEEMod User Guide Appendix A, "Land use types are broad categories of land uses with similar operating characteristics. Each of these land use types include several more detailed land use subtypes. CalEEMod has eight land use types: Commercial, Educational, Industrial, Parking, Recreational, Residential, Retail, and Linear. The user-selected land use type is a foundational input to construction and operations modules because it determines many default parameters" (California Air Pollution Control Officers Association 2022). Industrial was selected as it is the most appropriate for a solar generation facility and substation.

Watering exposed areas during construction is a standard practice to minimize windblown dust. CalEEMod allows the user to select the number of times watering is performed per day, with a maximum of three times per day. As a conservative estimate, three times per day was used for these calculations, however actual watering could be up to six times per day, as needed.

As mentioned in Section 1, Introduction, construction is anticipated to begin as early as January 2027. In this analysis, it is conservatively assumed that construction would commence in Quarter 4 of 2026. This is considered conservative because older and less efficient vehicles and equipment are expected to be retired and replaced by more efficient units over time, especially as new laws or regulations requiring increased efficiency come into effect. As such, average emissions will decrease over time and assuming an earlier start date is therefore conservative.

Although the Developed Area will be no greater than 2,400 acres, only 89 acres will be graded, primarily for interior access roads along electrical collection line corridors, the substation, and the operations and maintenance building. Included in the 89 acres is grading and clearing for unlined sediment (stormwater) control basins to capture stormwater and sediment leaving the site.

Twenty (20) miles was assumed for the 40 haul trips. These trips include dump trucks, water trucks, waste hauling trucks, and equipment deliveries such as solar panels from warehouses.

Some trucks may travel a further distance while others will travel a shorter distance, so 20 miles is a reasonable average and is commonly used as a default value to account for truck traffic within the jurisdiction of GBUAPCD. Construction worker vehicle emissions were estimated assuming approximately 450 round trips per day, with an average travel distance of 70 miles each way. The 70-mile distance reflects the approximate travel length from Las Vegas to the project site. Although most of these emissions would occur outside of California, they are included in the analysis to provide full disclosure under CEQA. Additionally, it is anticipated that roughly 30 percent of worker trips will originate from Pahrump, which is substantially closer to the site and would therefore generate fewer emissions, making this approach a conservative representation of total construction worker travel emissions. In addition to water, the onsite and offsite access roads will be graveled to reduce particulate emissions. As a CalEEMod input, a silt content of 5% was used to simulate 1.4 miles of travel on graveled access road.

Operational emissions from an approximately 20-kilowatt propane-powered generator used to provide emergency power the operations and maintenance building were quantified assuming 4 gallons per hour based on generic specifications for a 20-kilowatt propane generator, emission factors from South Coast Air Quality Management District's (SCAQMD) "Combustion Default Emission Factors" guidance document (SCAQMD 2024) for propane combustion, and 100 hours of emergency operation per year. TAC emissions from the generator were calculated using emission factors published by the Santa Barbara County Air Pollution Control District 2023. These emissions, along with project total emissions, can be found in Appendix B.

Neither Inyo County nor the GBUAPCD have established numerical significance thresholds for quantitatively determining air quality impacts. CEQA, however, allows lead agencies to rely on standards or thresholds promulgated by other agencies. The REGPA EIR suggests that the numerical thresholds for Mojave Desert Air Quality Management District (MDAQMD) are adequate to serve as significance thresholds because air quality and pollutant attainment status are similar (Inyo County 2015). However, several differences in air quality and pollutant attainment status should be noted. Namely, the Project is located in an area designated as attainment for all pollutants, whereas MDAQMD is classified as nonattainment for the federal PM_{10} 24-hour standard as well as the state PM_{10} and $PM_{2.5}$ standards. Therefore, numerical emission thresholds in MDAQMD for PM_{10} and $PM_{2.5}$ are likely to be overly cautious. The REGPA EIR also states that construction emissions, including TAC emissions from construction activities, should be evaluated qualitatively. Therefore, the construction emissions are quantified for CEQA disclosure purposes but are analyzed qualitatively. This approach found in the REGPA EIR has been used by other Air Districts. Specifically, implementing best management practices is the construction related threshold of significance for the Bay Area Air Quality Management District (BAAQMD 2022).

Based on the analysis in the REGPA EIR, solar energy facility projects could result in potentially significant impacts. These impacts require mitigation to reduce them to the maximum extent feasible. The GBUAPCD considers short-term construction equipment exhaust emissions to be less than significant (Inyo County 2015). The mitigation measures are discussed in more detail in Section 2.5 and primarily focus on mitigating impacts related to fugitive dust emissions.

For operational emissions, the REGPA EIR states that Project operations would have a significant impact to air quality if operational emissions from both direct and indirect sources exceed any of the threshold levels identified in Table 5, below.

TABLE 5 OPERATIONAL AIR POLLUTANT SIGNIFICANCE THRESHOLDS

Pollutant	**Significance Thresholds (pounds per day)**
VOC	137
NOx	137
CO	548
SOx	137
PM10	82
PM2.5	82

Note: while this table is direct from the REGPA EIR, the REGPA EIR sourced these thresholds directly from the MDAQMD's Operational CEQA thresholds.

2.3.2 HEALTH RISK ASSESSMENT

In addition to numerical emission thresholds, MDAQMD also specify Health Risk Assessment (HRA) thresholds for industrial projects within 1,000 feet of sensitive receptor land uses such as a residence. As there is a residential land use within 1,000 feet directly south of the Project location, a health risk screening based on SCAQMD's tools was completed to comply with MDAQMD's HRA thresholds. Specifically, a Tier 2 HRA was performed to conservatively evaluate cancer, chronic, and acute health impacts for both the construction and operational phases of the Project.

Although the construction of the Project is estimated to be approximately 18 months, 2 years was used as the Project duration when evaluating construction impacts since it is the shortest duration available in the tool.

Construction emissions were modeled as a point source at the center of the Developed Area. Using a point source for construction emissions at the center of the Area is conservative for emissions that will be released in the north end of the Area or on roads that are more than 1,000 meters away from residential receptors. This point source approach was also used in a Mitigated Negative Declaration for the Barker-Trona 4 solar project in Inyo County (Inyo County Planning Department 2023).

Meteorological data from the Desert Resorts Regional Airport was used in the tool since the climate is representative of Inyo County. The residential receptor distance during construction was

set to 1,000 meters since the nearest residence was more than 1,000 meters from the Developed Area's center. See Appendix C for additional details.

2.4 IMPACT EVALUATION

Would the Project:

A. Conflict with or obstruct implementation of the applicable air quality plan?

As the local air district with jurisdiction over the Project, the GBUAPCD is the applicable agency tasked with implementing programs and regulations required by the federal CAA and the California Clean Air Act. Project contractors and operators would be required to comply with regional air quality rules promulgated by the GBUAPCD.

The primary air emissions associated with the Project would be fugitive dust emissions during construction. Fugitive dust is addressed under GBUAPCD Rules 216A Secondary Sources, 401 Fugitive Dust, and 402 Nuisance. The Applicant would be required to comply with applicable provisions found therein. In accordance with GBUAPCD rules, mobile water trucks will also be used onsite throughout the entirety of the construction phase to control the fugitive dust. CARB pre-certified dust suppressants may also be used onsite to control dust emissions and may remain on certain portions of the Developed Area to reduce dust once the facility is put into normal operation. Note: implementation of these dust control measures is consistent with applicable GBUAPCD rules, as well as the standard mitigation measures described within the REGPA EIR prepared by Inyo County in support of the REGPA.

Development of renewable solar projects in Inyo County was contemplated in the REGPA EIR as part of the County's REGPA and the Project would comply with applicable goals and policies outlined in the REGPA that are meant to reduce air emissions during construction and operation.

Through implementation of onsite fugitive dust control measures consistent with GBUAPCD Rules 216A, 401, and 402 requirements, as well as the programmatic mitigations described within the REGPA EIR prepared by the County for their REGPA, the Project would be consistent with applicable air quality plans adopted by the GBUAPCD. Therefore, the Project would not obstruct implementation of applicable air quality plans, and impacts would therefore be less than significant with no mitigation required.

B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

CONSTRUCTION

Construction-related activities of the proposed Project will require approximately 18 months of continuous activity involving several overlapping phases. It is noted that construction-related activities that emit air emissions will be a mix of short-term, intermittent, and temporary durations and will vary from equipment type usage.

Construction-related activities of the proposed Project will generate air pollutant emissions from entrained dust, off-road equipment use, and vehicle emissions. Offsite emissions will be generated

by construction worker daily commute trips and heavy-duty diesel haul and vendor truck trips. Construction-related emissions could vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

Construction is scheduled to begin as early as January 2027.

Construction emissions are quantified and shown in Table 6.

TABLE 6 UNMITIGATED CONSTRUCTION EMISSIONS

Pollutant	Maximum Annual Construction Emissions (lb/day)
Carbon Monoxide	332
Oxides of Nitrogen	95
Volatile Organic Compounds	18
Oxides of Sulfur	0.74
Particulate Matter (PM_{10}) Dust	179
PM_{10} Exhaust	3.4
Particulate Matter ($PM_{2.5}$) Dust	24
$PM_{2.5}$ Exhaust	3.0

Notes:
lb = pound
PM_{10} = particulate matter with an aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 micrometers or less

As discussed in the REGPA EIR, "Although maximum daily construction pollutant impacts could contribute to a cumulatively considerable impact associated with the PM_{10} emissions during construction activities, impacts would be temporary, localized to the project site and would not be emitted over long distances. Following completion of project construction, all construction-related criteria pollutant impacts would cease. Accordingly, generation of PM_{10} emissions when combined with other cumulative projects, particularly those occurring nearby and simultaneously, would result in a potentially significant temporary cumulative impact to air quality." GBUAPCD considers short-term construction equipment exhaust emissions to be less than significant, the impact associated with construction exhaust emissions is therefore considered a Less than Significant Impact.

OPERATIONS

Operational emissions from the Project are summarized in Table 7 and will not exceed annual thresholds for any criteria pollutant. This is considered a Less than Significant Impact.

TABLE 7 ESTIMATED OPERATIONAL EMISSIONS

Pollutant	Operational Emissions (tpy)	REGPA EIR Operational Threshold (tpy)	REGPA EIR Threshold Exceeded?
Carbon Monoxide	0.27	100	No
Oxides of Nitrogen	0.06	25	No
Volatile Organic Compounds	0.06	25	No
Oxides of Sulfur	6.9E-04	25	No
Particulate Matter (PM_{10})	0.06	15	No
Particulate Matter ($PM_{2.5}$)	0.02	12	No

Notes:
PM_{10} = particulate matter with an aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 micrometers or less
REGPA EIR = Renewable Energy General Plan Amendment Environmental Impact Report
tpy = tons per year

C. Expose sensitive receptors to substantial pollutant concentrations?

A Health Risk Screening was performed to evaluate the effects of TACs, including DPM from vehicle engines, and various substances emitted by the propane generator. Health risks associated with the Project are presented in Table 8, which shows impacts are well below SCAQMD screening thresholds (SCAQMD 2008). Therefore, there would be no new or significant health risk impacts from the Project, with no mitigation required. (See the health risk screening results in Appendix C for additional detail.) As the proposed Project is not expected to expose sensitive receptors to substantial pollutant concentrations, impacts would be Less than Significant Impact with no mitigation required.

TABLE 8 PROJECT HEALTH RISK SCREENING RESULTS

Health Rick Screening Phase	Risk Type Assessed	Risk Units	Maximum Risk Value	Risk Threshold	Threshold Exceeded?
Construction	Chronic	Hazard Index	4.42E-03	1.0	No
	Cancer	MICR Per Million Exposed	7.57	10	No
Operation	Chronic	Hazard Index	6.00E-05	1.0	No
	Cancer	MICR Per Million Exposed	0.02	10	No
	Acute	Hazard Index	0.02	1.0	No

Note: MICR = Maximum Incremental Cancer Risk

D. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?

While offensive odors do not cause any physical harm, they can be unpleasant, leading to distress among the general public and can generate citizen complaints to local government agencies (such as the Sheriff, Fire, or Environmental Health Departments) and the local air district. Any project with the potential to expose members of the public to objectionable odors has the potential to adversely impact the atmosphere (environment). Because of the subjective nature of odor impacts, the number of variables that may influence the potential for an odor impact and the variety of odor sources, there are no quantitative or formulaic methodologies to determine if potential odors will have a significant impact. Projects should be evaluated on a case-by-case basis to determine if there are anticipated impacts to the environment associated with objectionable odors.

Construction-related activities will result in diesel exhaust emissions from construction equipment and activities and diesel-fueled vehicles entering and exiting the construction site which may release odors into the atmosphere. However, construction-related emissions will be temporary and intermittent and are not anticipated to affect a substantial number of local property owners. Furthermore, construction activities will occur within the proposed Developed Area and any potential odors associated with construction would dissipate before affecting property owners adjacent to the Project. Operation of the Project (solar energy facility) will not emit any odorous compounds. This is considered a Less than Significant Impact and no mitigation is required.

2.5 AIR QUALITY MITIGATION MEASURES

As discussed in the REGPA EIR, solar energy development projects producing more than 20 MW of electricity for off-site use could result in potentially significant impacts which require mitigation to reduce them to the maximum extent feasible. "If a proposed commercial scale or community scale solar development project is determined by the County to have the potential to impact air quality, then the following mitigation measures shall be implemented as determined necessary by the qualified County planner." They are summarized as follows:

- This technical report satisfies MM AQ-1.
- MM AQ-2 includes measures that would reduce the Project's potentially significant air quality impacts during construction. These measures are proposed to be implemented.
- MM AQ-3 includes measures that would further reduce the Project's already less-than-significant air quality impacts during operations. However, these measures are not feasible for this Project and, given the Project's very low operational emissions, are unwarranted and unnecessary. As such, MM AQ-3 is not proposed to be implemented as part of this Project.

No other Air Quality mitigation measures are proposed at this time.

Given the analysis provided herein, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable

federal or state ambient air quality standard and Project impacts would therefore be Less than Significant Impact with mitigation incorporated.

2.5.1 MM AQ-1: PREPARE PROJECT-SPECIFIC AIR QUALITY TECHNICAL REPORT (COMPLETE)

This technical report satisfies MM AQ-1 and this Mitigation Measure is satisfied.

2.5.2 MM AQ-2: REDUCE FUGITIVE DUST AND PARTICULATE MATTER EMISSIONS DURING CONSTRUCTION (PROPOSED FOR IMPLEMENTATION)

MM AQ-2 is proposed to be implemented during Project construction to control emissions of particulate matter and reads as follows:

> To control emissions of particulate matter, and to confirm compliance with GBUAPCD Rules 401 and 402 as well as applicable best management practices from the Renewable Energy Action Team's (REAT's) Best Management Practices and Guidance Manual (REAT 2010), solar projects shall implement fugitive dust and particulate matter emissions control measures including, but not limited to the following:

- Water and/or coarse rock all active construction areas as necessary and indicated by soil and air conditions.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard.
- Pave or apply (non-toxic) soil stabilizers on all unpaved access roads.
- Sweep daily (with water sweepers) all paved access roads.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Suspend excavation and grading activity when sustained winds make reasonable dust control difficult to implement, e.g., for winds over 25 miles per hour.
- Limit the speed of onsite vehicles to 15 miles per hour.

2.5.3 MM AQ-3: IMPLEMENT DUST CONTROL MEASURES DURING OPERATION (NOT PROPOSED FOR IMPLEMENTATION)

The REGPA EIR requires that the following dust control measures be incorporated into the Project design to control emissions of particulate matter during Project operations, if determined necessary by the County Planner. However, these measures are not feasible for this Project and, given the Project's very low operational emissions, are unwarranted and unnecessary. As such, MM AQ-3, which reads as follows, is not proposed to be implemented as part of this Project:

> To control emissions of particulate matter, and to ensure compliance with Great Basin Unified Air Pollution Control District Rule 401 and 402 as well as applicable BMPs from REAT's Best Management Practices and Guidance Manual (REAT 2010), solar projects shall incorporate feasible dust control measures into the site design including, but not limited to, the following:

- Incorporate perimeter sand fencing into the overall design to prevent migration of exposed soils into the surrounding areas. The perimeter fence is intended to provide long-term

protection around vulnerable portions of the site boundary; it is also intended to prevent off-road site access and sand migration across site boundaries and the associated impacts.

- Incorporate wind deflectors intermittently across solar project sites. The solar panels themselves, specially installed to traverse primary wind direction, will provide some measure of protection of the ground surface. Wind deflectors enhance this effect by lifting winds that may otherwise jet beneath panels, thereby disrupting long wind fetches and reducing surface wind velocities and sand migration.
- Orient infrastructure/solar panels perpendicular to primary wind directions.
- Adjust panel operating angles to reduce wind speeds under panels.
- Perform revegetation in areas temporarily denuded during construction. These areas would be replanted with native plants species that exist on the site at present. Irrigation would be applied temporarily during the plant established period (typically multiple years), but after establishment it is expected that these areas would require little or no maintenance. Vegetation provides dust control by protecting and preventing threshold wind velocities at the soil surface. Studies have shown that an 11 to 54 percent vegetation cover on a site can provide up to 99 percent PM_{10} control efficiency (GBUAPCD 2008).
- As the installation of solar panels and associated equipment progresses, each area that is completed (i.e., where no further soil disturbance is anticipated) will be treated with a dust palliative to prevent wind erosion. CARB certifications indicate that the application of dust suppressants can reduce PM10 emissions by 84 percent or more (CARB 2025b).

3. GREENHOUSE GAS EMISSIONS

3.1 ENVIRONMENTAL SETTING

GHGs are gases that trap heat in the atmosphere. The major concern is that increases in GHGs are causing global climate change, which is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation, and temperature. The gases believed to be most responsible for global warming are water vapor, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Nitrogen trifluoride was not listed initially in Assembly Bill (AB) 32 but was subsequently added to the list via legislation.

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature (GMST) for the decade from 2006 to 2015 was approximately 0.87 degrees Celsius (°C) (0.75 °C to 0.99 °C) higher than the average GMST over the period from 1850 to 1900. Due to past and current activities, anthropogenic GHG emissions are increasing GMST at a rate of 0.2 °C per decade. There are also identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades. According to California's Fourth Climate Change Assessment, statewide

temperatures from 1986 to 2016 were approximately 1 °F to 2 °F higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include loss in water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2017).

3.2 REGULATORY SETTING

3.2.1 FEDERAL

The Supreme Court decision in Massachusetts et al. v. Environmental Protection Agency et al. (Supreme Court Case 051120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the federal CAA. On 17 April 2009, USEPA found that carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. The USEPA has established reporting regulations that require specific facilities and industries to report their GHG emissions annually. *40 Code of Federal Regulations (CFR) Part 98, Mandatory Reporting of Greenhouse Gases Rule (MRR)* requires mandatory reporting of GHG emissions for facilities that emit more than 25,000 metric tons (MT) of carbon dioxide equivalent (CO2e) per year.

3.2.2 STATE

EXECUTIVE ORDER S-3-05

State Executive Order S-3-05 established GHG reduction targets for the state of California. The targets called for a reduction of GHG emissions to 2000 levels by 2010, a reduction of GHG emissions to 1990 levels by 2020, and a reduction of GHG emissions to 80 percent below 1990 levels by 2050.

The Executive Order additionally ordered the Secretary of the California Environmental Protection Agency (Cal EPA) to coordinate oversight of the efforts among state agencies made to meet the targets and report to the Governor and the State Legislature biannually on progress made toward meeting the GHG emission targets. Cal EPA was also directed to report biannually on the impacts to California of global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry, and prepare and report on mitigation and adaptation plans to combat these impacts. In response to the Executive Order, the Secretary of Cal EPA created the Climate Action Team (CAT), composed of representatives from the Air Resources Board; Business, Transportation, and Housing; Department of Food and Agriculture; Energy Commission; California Integrated Waste Management Board; Resources Agency; and the Public Utilities Commission. The CAT prepared a recommended list of strategies for the state to pursue to reduce climate change emission in the state (CAT 2006).

ASSEMBLY BILL 32: GLOBAL WARMING SOLUTIONS ACT OF 2006

In 2006, the California State Legislature signed the Global Warming Solutions Act of 2006 (AB 32). AB 32 provides the framework for regulating GHG emissions in California. This law requires CARB to design and implement emission limits, regulations, and other measures such that statewide GHG emissions are reduced in a technologically feasible and cost-effective manner to

1990 levels by 2020 and requires that these 1990-level emission limits remain in effect indefinitely and be used to maintain and continue reductions in emissions of GHG beyond 2020.

The bill also requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The bill authorizes CARB to adopt market-based compliance mechanisms. The bill additionally requires the state board to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism adopted by the state board, pursuant to specified provisions of existing law. The bill also authorizes CARB to adopt a schedule of fees to be paid by regulated sources of GHG emissions. Because the bill requires CARB to establish emissions limits and other requirements, the violation of which would be a crime, this bill created a state-mandated local program. Under AB 32, by 30 June 2007, CARB was to identify a list of discrete early action GHG reductions that would be legally enforceable by 2010. By 1 January 2008, CARB was also to adopt regulations that would identify and require selected sectors to report their statewide GHG emissions. By 1 January 2011, CARB must have adopted rules and regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG reductions. California surpassed the AB 32 target of reducing GHG emissions to 1990 levels with its reported statewide 2016 inventory. However, with the economy and the population continuing to grow, to keep to the 1990 levels of emissions after 2020, California needs to continue to reduce both its per capita emissions and its GHG intensity.

SENATE BILL 97

Senate Bill (SB) 97, enacted in 2007, amended the CEQA statute to establish that GHG emissions and their effects are a prominent environmental issue that require analysis and identification of feasible mitigation under CEQA. GHG emissions were incorporated into the CEQA guidelines on 18 March 2010.

SENATE BILL 375

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy or Alternative Planning Strategy, which will prescribe land use allocation in that MPO’s Regional Transportation Plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO’s Sustainable Communities Strategy or Alternative Planning Strategy for consistency with its assigned targets. If MPOs do not meet the GHG emission reduction targets, transportation projects would not be eligible for funding programmed after 1 January 2012.

SENATE BILL 743

With the passing of SB 743 in 2013, the Governor's Office of Planning and Research amended the State CEQA Guidelines providing alternative criteria to level of service for evaluating transportation impacts. One of the goals of the new criteria is to promote the reduction of GHG. Local jurisdictions were required to implement SB 743 by 1 July 2020 or do additional transportation analysis on a project-by-project basis.

EXECUTIVE ORDER B-30-15

In April 2015, Governor Brown signed Executive Order B-30-15 that added the intermediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030.

SENATE BILL 350

SB 350, also known as the Clean Energy and Pollution Reduction Act, was enacted in 2015. It established clean energy, clean air, and GHG reduction goals, including reducing GHG to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. SB 350 also increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This objective will increase the use of Renewable Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others.

SENATE BILL 32 AND ASSEMBLY BILL 197

On 8 September 2016, Governor Brown signed SB 32 and AB 197, which codified the 2030 GHG emissions reduction target of 40 percent below 1990 levels and provided additional direction for updating the scoping plan.

SENATE BILL 100

On 10 September 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by 31 December 2045. SB 100 also creates new standards for the RPS goals established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. California must procure 100 percent of its energy from carbon free energy sources by the end of 2045.

CLIMATE CHANGE SCOPING PLAN

CARB published a Climate Change Scoping Plan in December 2008 that outlines reduction measures to lower the State's GHG emissions to meet the 2020 limit. A third update to the initial 2008 Scoping Plan was developed in 2022, the 2022 Scoping Plan for Achieving Carbon Neutrality (CARB 2022). Key elements for reducing California's GHG emissions to 1990 levels by 2030 and carbon neutrality by 2045 include:

- Reduction of fossil fuel usage through transition to zero-emission transportation and electrification of buildings and industrial processes;

- Transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes;
- Increased carbon removal and sequestration methods by enhancing natural and working lands (forests, wetlands, agriculture) for carbon sequestration and investing in carbon capture and storage and direct air capture technologies;
- Integrating equity and environmental justice efforts through prioritizing air quality improvements in disadvantaged communities; and
- Expanding energy efficiency programs across multiple sectors to encourage electric appliance sales with goals of 80 percent of all commercial and residential appliances to be electric by 2030.

3.2.3 REGIONAL

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

The GBUAPCD regulates air quality in the County according to the standards established in the CAA and amendments to that act. The GBUAPCD regulates air quality through its permitting authority and through air quality-related planning and review activities over most types of stationary emission sources.

INYO COUNTY GENERAL PLAN

Although the General Plan (2002, as amended) does not currently include any goals, policies, or implementation measures specifically related to GHG emissions, the Conservation and Open Space Element was updated in 2014 with an Energy Efficiency chapter that contains the following policies which indirectly address global climate change.

- Policy EE-1.2. The County will continue to evaluate energy use and reduction targets as a way to promote energy efficiency throughout the County and as a means to reduce operating costs.
- Policy EE-1.3. The County will continue to implement the action items identified in the 2012 Energy Action Plan to meet its overall energy reduction goals as long as those actions will result in savings to the County from reduced energy usage.

ENERGY ACTION PLAN

An Energy Action Plan was prepared for the County in October 2012 with the purpose of outlining a strategy to reduce energy use and costs throughout the County. The plan establishes a long-term vision for energy efficiency, identifies reduction goals and milestones, provides potential energy reduction policies and procedures, identifies County buildings that are highly energy efficient and County buildings that require improvements, and presents potential funding mechanisms for energy efficiency projects.

INYO COUNTY CODE TITLE 21: RENEWABLE ENERGY ORDINANCE

The County adopted Inyo County Code Title 21, the Renewable Energy Ordinance, in 2010. The ordinance supports and encourages the responsible utilization of the County's natural resources and encourages the use of clean, renewable energy sources. This ordinance focuses mainly on the use of wind and solar resources for alternative energy purposes.

INYO COUNTY'S RENEWABLE ENERGY GENERAL PLAN AMENDMENT

Inyo County's REGPA aims to guide the development of renewable energy projects within the county, particularly solar facilities, while balancing energy needs with environmental and socioeconomic considerations. The amendment, which was approved in 2015, includes policies for siting both community and utility-scale solar facilities, but it does not include policies specific to GHG.

3.3 METHODOLOGY

GHG emissions were modeled using the CalEEMod, version 2022.1.1.39. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod outputs of Project emissions can be found in Appendix A.

As discussed in the air quality portion, neither Inyo County nor the GBUAPCD have established numerical significance thresholds for quantitatively determining GHG impacts. CEQA, however, allows lead agencies to rely on standards or thresholds promulgated by other agencies. The GBUAPCD has allowed use of the numerical standards of the Mojave Desert Air Quality Management District (MDAQMD) in prior CEQA reviews. Because GHG is a global issue and reduction goals are the same across California, the numerical threshold set for MDAB is 100,000 short tons of CO2e, or 90,718 MT of CO2e, is considered adequate to serve as a significance threshold for the proposed Project.

Because impacts from construction activities occur over a relatively short-term period, they contribute a relatively small portion of the overall lifetime Project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, it is recommended that construction emissions be amortized over the 50-year Project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies.

3.4 IMPACT EVALUATION

Would the Project:

A. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

The Project will generate GHG emissions directly and indirectly during construction- and routine operational- and maintenance-related activities. The majority of emissions from the Project will be generated during construction-related activities.

CONSTRUCTION

Construction-related activities of the Project will generate temporary GHG emissions primarily from the use of onsite construction equipment, vehicles transporting construction workers to and from the Project, and heavy-duty trucks used to import materials.

Table 9 presents total estimated emissions from construction related activities from onsite and offsite emission sources. The estimated total GHG emissions during Project construction-related activities will be approximately 2,341 MT CO2e over the 18-month construction period. Estimated construction emissions related to the Project amortized over 50 years, the anticipated Project lifetime, will be approximately 58.5 MT CO2e per year.

TABLE 9 ESTIMATED GREENHOUSE GAS EMISSIONS DURING CONSTRUCTION

Year	Total (MT CO2e)
2026	1,267
2027	9,265
2028	2,119
Total Construction	12,651
Amortized Emissions (50-year life)	253

Notes:
CO2e = carbon dioxide equivalent
MT = metric tons

OPERATIONS

Operation- and maintenance-related activities of the Project will generate GHG emissions largely through motor vehicle trips to and from the Project, onsite maintenance activities involving portable equipment and maintenance vehicles, and energy use associated with water consumption. Table 10 summarizes operational-related emissions associated with the Project. The Project will emit an estimated 67 MT CO2e per year during operational related activities. The total construction GHG emissions, amortized over 50 years, was added to the annual estimated operational emissions to estimate annual GHG emissions generated by the Project. As shown in Table 10, the Project will emit an average of 320 MT CO2e per year over the operational life of the Project (assumed 50 years). Operational emissions presented are also a conservative estimate as it does not take into account displaced emissions from the energy generated at this facility. Implementation of the proposed Project will result in a Less than Significant Impact associated with the generation of GHG emissions.

TABLE 10 ESTIMATED ANNUAL OPERATIONAL GREENHOUSE GAS EMISSIONS

	Total (MT per year CO2e)
Operation	67
Amortized Construction Emissions	253
Annual Total	320
Annual Threshold	90,718
Exceeds annual threshold?	No

Notes:
CO2e = carbon dioxide equivalent
MT = metric tons

CONCLUSION

The Project-related emissions will be considered to have a significant cumulative impact if Project-specific impacts are determined to be significant. As previously discussed above, the proposed Project will generate GHG emissions during construction- and routine operational- and maintenance-related activities. However, the proposed solar generating facility will offset GHG emissions by replacing energy generated by fossil-fueled power plants; therefore, the numerical GHG emissions are a conservative estimate. As the proposed Project will result in a Less than Significant Project-specific impact, a Less than Significant Cumulative Impact will occur.

B. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

In April 2015, Governor Edmund G. Brown Jr. issued Executive Order B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. Reaching this emission reduction target will make it possible for California to reach its ultimate goal of reducing emissions 80 percent under 1990 levels by 2050, as identified in Executive Order S-3-05. Executive Order B-30-15 also specifically addresses the need for climate adaptation and directs State government to:

- Incorporate climate change impacts into the State's Five-Year Infrastructure Plan;
- Update the Safeguarding California Plan, the State climate adaption strategy to identify how climate change will affect California infrastructure and industry and what actions the State can take to reduce the risks posed by climate change;
- Factor climate change into State agencies' planning and investment decisions; and
- Implement measures under existing agency and departmental authority to reduce GHG emissions.

On 10 September 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by 31 December 2045. SB 100 also creates new standards for the RPS goals established by SB 350 in

2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. California must procure 100 percent of its energy from carbon free energy sources by the end of 2045. The updated RPS goals are considered achievable, since many California energy providers are already meeting or exceeding the RPS goals established by SB 350.

Executive Order B-30-15 required CARB to update the AB 32 Climate Change Scoping Plan to incorporate the 2030 target. Subsequently, SB 32, which codifies the Executive Order's 2030 emissions reduction target, was approved by the Governor on 8 September 2016. SB 32 requires CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions to ensure that statewide GHG emissions are reduced to at least 40 percent below the 1990 statewide GHG emissions limit no later than 31 December 2030 (the target date established by Executive Order B-30-15). CARB adopted the 2022 Scoping Plan to achieve this goal.

CONCLUSION

The Project involves the construction-, operation- and maintenance-related activities of a solar facility that will produce a new renewable source of energy in Inyo County. This additional solar-generated energy will be added to the power grid and used in place of electricity generated by fossil-fuel sources and thus will directly support energy goals under SB 32,SB 100, and the 2022 Scoping Plan. Additionally, the Project will be consistent with the Inyo County Code Title 21 to encourage renewable energy, including solar facilities. The Project will be consistent with state and regional plans to reduce GHG emissions and No Impact will occur.

4. REFERENCES

California Air Pollution Control Officers Association. 2022. User Guide for CalEEMod Version 2022.1 Appendix A Glossary. Access on 19 August 2025. Retrieved from: https://www.caleemod.com/documents/user-guide/02_Appendix%20A.pdf

California Association of Environmental Professionals (AEP) 2025. 2025 CEQA Statue and Guidelines. Accessed on 27 March 2025. Retrieved from: https://www.califaep.org/statute_and_guidelines.php

California Air Resources Board (CARB). 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. Accessed 21 August 2025. Retrieved from: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf

CARB. 2023. Area Designation Maps / State and National. Accessed on 21 April 2025. Retrieved from: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

CARB. 2024. Table of Ambient Air Quality Standards. Accessed on 27 March 2025. Retrieved from: https://ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf.

CARB 2025a. iADAM: Air Quality Data Statistics Tool. Accessed on 22 April 2025. Retrieved from: https://arb.ca.gov/adam/topfour/topfour1.php.

CARB 2025b. Precertified Equipment. Accessed on 22 April 2025. Retrieved from: https://ww2.arb.ca.gov/our-work/programs/equipment-and-process-precertification-program-stationary-sources-only-0

California Climate Action Team (CAT) 2006. Accessed on 27 March 2025. Final 2006 Climate Action Team Report to the Governor and Legislature. California Environmental Protection Agency, California Climate Action Team.

Bay Area Air Quality Management District (BAAQMD) 2022. CEQA Air Quality Guidelines. Accessed on 10 October 2025. Retrieved from: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

Great Basin Unified Air Pollution Control District (GBUAPCD) 2008. 2008 Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan. Accessed on 27 March 2025. Retrieved from: https://gbuapcd.org/Docs/District/AirQualityPlans/SIP_Archive/2008SIPfinal/2008%20SIP%20-%20FINAL.pdf.

GBUAPCD. 2022. National Ambient Air Quality Standards (NAAQS) Planning Areas. Accessed on: 21 April 2025. Retrieved from: https://gbuapcd.org/District/AirQualityPlans/.

Inyo County. 2002. Goals and Policies Report for the Inyo County General Plan. Accessed on 27 March 2025. Retrieved from: https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf.

Inyo County. 2015. Renewable Energy General Plan. Accessed on 27 March 2025. Retrieved from: https://www.inyocounty.us/sites/default/files/2020-04/FinalREGPA33015.pdf.

Inyo County Planning Department. 2023. Recirculated Draft Mitigated Negative Declaration of Environmental Impact and Initial Study. Accessed on 27 March 2025. Retrieved from: https://files.ceqanet.lci.ca.gov/283144-2/attachment/0-DtL1H-lDrlWjCJUniZuRzD8rUXNKJjQeMnrOntqjWc27mWk2YGcF3I-8vc0NT26YGP5pbcqZ89ie5u0

Mojave Desert Air Quality Management District. 2020. California Environmental Quality Act (CEQA) and Federal Conformity Guidelines. Access on 19 August 2025. Retrieved from: https://www.mdaqmd.ca.gov/home/showpublisheddocument/8510/638591628485530000

Renewable Energy Action Team (REAT) 2010. Best Management Practices and Guidance Manual for Desert Renewable Energy Projects.

Santa Barbara County Air Pollution Control District. 2023. Toxic Air Contaminant Emission Factors. Accessed on 7 April 2025. Retrieved from: https://www.ourair.org/tac-efs/.

South Coast Air Quality Management District (SCAQMD). 2008. Draft Guidance Document – Interim CEQA GHG Significance Thresholds.

SCAQMD. 2024. Combustion Default Emission Factors. Accessed on 19 August 2025. Retrieved from: https://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/combustion-default-emission-factors-2024.pdf?sfvrsn=9

State of California. 2017. Physical Drivers of Climate Change – Climate Science Special Report. Accessed on 27 March 2025. Retrieved from: https://science2017.globalchange.gov/chapter/2/.

United States Environmental Protection Agency (USEPA). 2025. Monitor Values Report Tool. Accessed on 22 April 2025. Retrieved from: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report.

APPENDIX A CALEEMOD OUTPUTS

Bonanza Peak Energy Project Detailed Report

Table of Contents

1. Basic Project Information
   1.1. Basic Project Information
   1.2. Land Use Types
   1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
   2.1. Construction Emissions Compared Against Thresholds
   2.2. Construction Emissions by Year
      2.2.1. Total Construction Emissions by Year, Unmitigated
      2.2.2. Onsite Construction Emissions by Year, Unmitigated
      2.2.3. Offsite Construction Emissions by Year, Unmitigated
   2.3. Operations Emissions Compared Against Thresholds
   2.4. Operations Emissions by Sector, Unmitigated
3. Construction Emissions Details
   3.1. Road Construction (2026)
      3.1.1. Onsite - Unmitigated
      3.1.2. Offsite - Unmitigated
   3.2. Project Cleanup (2028)
      3.2.1. Onsite - Unmitigated

3.2.2. Offsite - Unmitigated
3.3. Grading (2026)
3.3.1. Onsite - Unmitigated
3.3.2. Offsite - Unmitigated
3.4. Electrical Work, Station Construction (2026)
3.4.1. Onsite - Unmitigated
3.4.2. Offsite - Unmitigated
3.5. Electrical Work, Station Construction (2027)
3.5.1. Onsite - Unmitigated
3.5.2. Offsite - Unmitigated
3.6. Electrical Work, Station Construction (2028)
3.6.1. Onsite - Unmitigated
3.6.2. Offsite - Unmitigated
3.7. Solar Array Assembly and Erection (2026)
3.7.1. Onsite - Unmitigated
3.7.2. Offsite - Unmitigated
3.8. Solar Array Assembly and Erection (2027)
3.8.1. Onsite - Unmitigated
3.8.2. Offsite - Unmitigated
3.9. Solar Array Assembly and Erection (2028)
3.9.1. Onsite - Unmitigated
3.9.2. Offsite - Unmitigated

4. Operations Emissions Details
4.1. Mobile Emissions by Land Use
4.1.1. Unmitigated
4.2. Energy
4.2.1. Electricity Emissions By Land Use - Unmitigated
4.2.3. Natural Gas Emissions By Land Use - Unmitigated
4.3. Area Emissions by Source
4.3.1. Unmitigated
4.4. Water Emissions by Land Use
4.4.1. Unmitigated
4.5. Waste Emissions by Land Use
4.5.1. Unmitigated
4.6. Refrigerant Emissions by Land Use
4.6.1. Unmitigated
4.7. Offroad Emissions By Equipment Type
4.7.1. Unmitigated
4.8. Stationary Emissions By Equipment Type
4.8.1. Unmitigated
4.9. User Defined Emissions By Equipment Type
4.9.1. Unmitigated
4.10. Soil Carbon Accumulation By Vegetation Type
4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated
4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated
5. Activity Data
5.1. Construction Schedule
5.2. Off-Road Equipment
5.2.1. Unmitigated
5.3. Construction Vehicles
5.3.1. Unmitigated
5.4. Vehicles
5.4.1. Construction Vehicle Control Strategies
5.5. Architectural Coatings
5.6. Dust Mitigation
5.6.1. Construction Earthmoving Activities
5.6.2. Construction Earthmoving Control Strategies
5.7. Construction Paving
5.8. Construction Electricity Consumption and Emissions Factors
5.9. Operational Mobile Sources
5.9.1. Unmitigated
5.10. Operational Area Sources
5.10.1. Hearths
5.10.2. Architectural Coatings
5.10.3. Landscape Equipment

5.11. Operational Energy Consumption
5.11.1. Unmitigated
5.12. Operational Water and Wastewater Consumption
5.12.1. Unmitigated
5.13. Operational Waste Generation
5.13.1. Unmitigated
5.14. Operational Refrigeration and Air Conditioning Equipment
5.14.1. Unmitigated
5.15. Operational Off-Road Equipment
5.15.1. Unmitigated
5.16. Stationary Sources
5.16.1. Emergency Generators and Fire Pumps
5.16.2. Process Boilers
5.17. User Defined
5.18. Vegetation
5.18.1. Land Use Change
5.18.1.1. Unmitigated
5.18.1. Biomass Cover Type
5.18.1.1. Unmitigated
5.18.2. Sequestration
5.18.2.1. Unmitigated
6. Climate Risk Detailed Report

- 6.1. Climate Risk Summary
- 6.2. Initial Climate Risk Scores
- 6.3. Adjusted Climate Risk Scores
- 6.4. Climate Risk Reduction Measures

7. Health and Equity Details
   - 7.1. CalEnviroScreen 4.0 Scores
   - 7.2. Healthy Places Index Scores
   - 7.3. Overall Health & Equity Scores
   - 7.4. Health & Equity Measures
   - 7.5. Evaluation Scorecard
   - 7.6. Health & Equity Custom Measures
8. User Changes to Default Data
   - 8.1. Justifications
   - 8.3. Land Use
   - 8.4. Construction
     - 8.4.1. Construction Phases
     - 8.4.2. Off-Road Equipment
     - 8.4.4. Dust from Material Movement
     - 8.4.6. Trips and VMT
     - 8.4.7. On-Road Fugitive Dust
   - 8.5. Operations
     - 8.5.1. Mobile Sources

8.5.1.1. Vehicle Data
8.5.4. Water and Waste Water
8.5.5. Solid Waste

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Bonanza Peak Energy Project
Construction Start Date	4/1/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.00000
Precipitation (days)	5.80000
Location	35.99227241251084, -115.90327358663103
County	Inyo
City	Unincorporated
Air District	Great Basin UAPCD
Air Basin	Great Basin Valleys
TAZ	3013
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	—

Data Field	Value
App Version	2022.1.1.46

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Industrial	1.000000	User Defined Unit	2,380.00	2,000.00	0.00000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	20.9821	16.2264	89.7202	316.286	0.29503	2.42459	178.901	181.326	2.23972	24.0529	26.2926	—	80,303.7	80,303.7	2.63422	2.56985	169.316	81,304.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	21.7631	18.3422	94.8578	332.431	0.29513	2.64119	178.901	181.542	2.43913	24.0529	26.4920	—	81,190.3	81,190.3	2.65397	2.63068	4.80093	82,045.4

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.8603	11.4453	66.3622	194.924	0.21074	1.73311	126.156	127.890	1.60106	17.0003	18.6014	—	55,312.5	55,312.5	1.90714	1.85104	52.2527	55,964.0
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.52950	2.08877	12.1111	35.5736	0.03846	0.31629	23.0235	23.3398	0.29219	3.10256	3.39475	—	9,157.61	9,157.61	0.31575	0.30646	8.65104	9,265.48

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	20.9821	16.2264	89.7202	316.286	0.29503	2.42459	178.901	181.326	2.23972	24.0529	26.2926	—	80,303.7	80,303.7	2.63422	2.56985	169.316	81,304.6
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	21.7631	18.3422	94.8578	332.431	0.29509	2.64119	178.901	181.542	2.43913	24.0529	26.4920	—	81,190.3	81,190.3	2.65397	2.63068	4.80093	82,045.4
2027	21.3071	16.5747	89.9494	315.063	0.29503	2.42636	178.901	181.327	2.24148	24.0529	26.2943	—	80,122.9	80,122.9	2.63422	2.57161	4.38573	80,959.5
2028	19.4327	16.1163	84.1314	298.903	0.29513	2.28265	178.901	181.107	2.10025	24.0529	26.0915	—	79,110.4	79,110.4	2.63075	2.53466	3.99100	79,935.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
2026	2.46155	2.06608	12.9058	26.7901	0.03948	0.42206	12.9040	13.3261	0.38893	1.80971	2.19864	—	7,578.57	7,578.57	0.27191	0.20093	5.67618	7,650.92
2027	13.8603	11.4453	66.3622	194.924	0.21074	1.73311	126.156	127.890	1.60106	17.0003	18.6014	—	55,312.5	55,312.5	1.90714	1.85104	52.2527	55,964.0
2028	3.23601	2.67035	14.8494	42.9640	0.05074	0.39747	28.4256	28.8230	0.36713	3.83054	4.19767	—	12,660.7	12,660.7	0.21733	0.41397	10.7041	12,800.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.44923	0.37706	2.35532	4.88920	0.00720	0.07703	2.35499	2.43201	0.07098	0.33027	0.40125	—	1,254.72	1,254.72	0.04502	0.03327	0.93976	1,266.70
2027	2.52950	2.08877	12.1111	35.5736	0.03846	0.31629	23.0235	23.3398	0.29219	3.10256	3.39475	—	9,157.61	9,157.61	0.31575	0.30646	8.65104	9,265.48
2028	0.59057	0.48734	2.71002	7.84093	0.00926	0.07254	5.18767	5.26021	0.06700	0.69907	0.76607	—	2,096.12	2,096.12	0.03598	0.06854	1.77219	2,119.22

2.2.2. Onsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	11.6431	9.76259	68.8427	86.4829	0.25374	2.31098	0.00000	2.31098	2.12610	0.00000	2.12610	—	26,577.0	26,577.0	1.07808	0.21562	0.00000	26,668.2
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	11.8589	9.94237	72.0830	86.6495	0.25380	2.52581	4.12247	6.19727	2.32375	1.30962	3.21844	—	26,583.7	26,583.7	1.07835	0.21567	0.00000	26,674.9
2027	11.6431	9.76259	68.8427	86.4829	0.25374	2.31098	0.00000	2.31098	2.12610	0.00000	2.12610	—	26,577.0	26,577.0	1.07808	0.21562	0.00000	26,668.2
2028	11.3606	9.52664	64.7442	86.1275	0.25384	2.27996	0.00000	2.27996	2.09756	0.00000	2.09756	—	26,587.6	26,587.6	1.07851	0.21570	0.00000	26,678.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.79706	1.50850	11.0965	12.5031	0.03665	0.41416	0.38401	0.79817	0.38103	0.12199	0.50302	—	3,906.88	3,906.88	0.15848	0.03170	0.00000	3,920.29

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
2027	8.31648	6.97328	49.1734	61.7735	0.18124	1.65070	0.00000	1.65070	1.51864	0.00000	1.51864	—	18,983.6	18,983.6	0.77006	0.15401	0.00000	19,048.7
2028	2.00606	1.68253	11.4773	15.0831	0.04410	0.37918	0.00000	0.37918	0.34885	0.00000	0.34885	—	4,631.02	4,631.02	0.18785	0.03757	0.00000	4,646.91
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.32796	0.27530	2.02511	2.28182	0.00669	0.07558	0.07008	0.14567	0.06954	0.02226	0.09180	—	646.828	646.828	0.02624	0.00525	0.00000	649.048
2027	1.51776	1.27262	8.97414	11.2737	0.03308	0.30125	0.00000	0.30125	0.27715	0.00000	0.27715	—	3,142.95	3,142.95	0.12749	0.02550	0.00000	3,153.74
2028	0.36611	0.30706	2.09460	2.75267	0.00805	0.06920	0.00000	0.06920	0.06366	0.00000	0.06366	—	766.718	766.718	0.03110	0.00622	0.00000	769.349

2.2.3. Offsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	9.33904	6.46383	20.8775	229.803	0.04129	0.11362	178.901	179.015	0.11362	24.0529	24.1665	—	53,726.6	53,726.6	1.55613	2.35423	169.316	54,636.4
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	9.90422	8.39984	22.7748	245.782	0.04129	0.11538	178.901	179.016	0.11538	24.0529	24.1682	—	54,606.6	54,606.6	1.57562	2.41501	4.80093	55,370.5
2027	9.66400	6.81216	21.1066	228.580	0.04129	0.11538	178.901	179.016	0.11538	24.0529	24.1682	—	53,545.9	53,545.9	1.55613	2.35600	4.38573	54,291.2
2028	8.07206	6.58965	19.3872	212.776	0.04129	0.11538	178.901	179.016	0.11538	24.0529	24.1682	—	52,522.8	52,522.8	1.55224	2.31896	3.99100	53,256.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.66449	0.55758	1.80938	14.2870	0.00283	0.00790	12.5200	12.5279	0.00790	1.68772	1.69562	—	3,671.69	3,671.69	0.11343	0.16923	5.67618	3,730.63
2027	5.54378	4.47201	17.1889	133.150	0.02949	0.08241	126.156	126.239	0.08241	17.0003	17.0827	—	36,328.9	36,328.9	1.13709	1.69703	52.2527	36,915.3

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
2028	1.22994	0.98782	3.37214	27.8808	0.00664	0.01828	28.4256	28.4439	0.01828	3.83054	3.84882	—	8,029.68	8,029.68	0.02948	0.37639	10.7041	8,153.29
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.12127	0.10176	0.33021	2.60738	0.00052	0.00144	2.28490	2.28635	0.00144	0.30801	0.30945	—	607.890	607.890	0.01878	0.02802	0.93976	617.649
2027	1.01174	0.81614	3.13697	24.2999	0.00538	0.01504	23.0235	23.0386	0.01504	3.10256	3.11760	—	6,014.66	6,014.66	0.18826	0.28096	8.65104	6,111.75
2028	0.22446	0.18028	0.61542	5.08825	0.00121	0.00334	5.18767	5.19100	0.00334	0.69907	0.70241	—	1,329.41	1,329.41	0.00488	0.06232	1.77219	1,349.87

2.3. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.27450	0.25652	0.18455	1.78769	0.00427	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	1.00243	433.569	434.571	0.60210	0.01730	1.27989	456.058
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.29060	0.27259	0.18962	1.78393	0.00426	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	1.00243	432.311	433.314	0.60213	0.01750	0.03319	453.617
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.22963	0.21450	0.16998	1.36092	0.00337	0.00295	0.30797	0.31092	0.00277	0.07814	0.08091	1.00243	342.963	343.966	0.60029	0.01550	0.45791	364.051
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04191	0.03915	0.03102	0.24837	0.00062	0.00054	0.05620	0.05674	0.00051	0.01426	0.01477	0.16596	56.7815	56.9475	0.09939	0.00257	0.07581	60.2728

2.4. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21899	0.20101	0.18455	1.78769	0.00427	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	—	433.569	433.569	0.01496	0.01564	1.27989	439.883
Area	0.05550	0.05550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.48694	0.00166	—	12.6681
Waste	—	—	—	—	—	—	—	—	—	—	—	1.00243	0.00000	1.00243	0.10019	0.00000	—	3.50715
Total	0.27450	0.25652	0.18455	1.78769	0.00427	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	1.00243	433.569	434.571	0.60210	0.01730	1.27989	456.058
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23509	0.21709	0.18962	1.78393	0.00426	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	—	432.311	432.311	0.01500	0.01584	0.03319	437.441
Area	0.05550	0.05550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.48694	0.00166	—	12.6681
Waste	—	—	—	—	—	—	—	—	—	—	—	1.00243	0.00000	1.00243	0.10019	0.00000	—	3.50715
Total	0.29060	0.27259	0.18962	1.78393	0.00426	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	1.00243	432.311	433.314	0.60213	0.01750	0.03319	453.617
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.17413	0.15899	0.16998	1.36092	0.00337	0.00295	0.30797	0.31092	0.00277	0.07814	0.08091	—	342.963	342.963	0.01316	0.01384	0.45791	347.876
Area	0.05550	0.05550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.48694	0.00166	—	12.6681
Waste	—	—	—	—	—	—	—	—	—	—	—	1.00243	0.00000	1.00243	0.10019	0.00000	—	3.50715
Total	0.22963	0.21450	0.16998	1.36092	0.00337	0.00295	0.30797	0.31092	0.00277	0.07814	0.08091	1.00243	342.963	343.966	0.60029	0.01550	0.45791	364.051
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.03178	0.02902	0.03102	0.24837	0.00062	0.00054	0.05620	0.05674	0.00051	0.01426	0.01477	—	56.7815	56.7815	0.00218	0.00229	0.07581	57.5948
Area	0.01013	0.01013	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Water	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.08062	0.00027	—	2.09735
Waste	—	—	—	—	—	—	—	—	—	—	—	0.16596	0.00000	0.16596	0.01659	0.00000	—	0.58065
Total	0.04191	0.03915	0.03102	0.24837	0.00062	0.00054	0.05620	0.05674	0.00051	0.01426	0.01477	0.16596	56.7815	56.9475	0.09939	0.00257	0.07581	60.2728

3. Construction Emissions Details

3.1. Road Construction (2026)

3.1.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	10.1451	8.52467	63.0291	66.9351	0.18594	2.49700	—	2.49700	2.29724	—	2.29724	—	20,134.3	20,134.3	0.81674	0.16335	—	20,203.4
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19456	0.16349	1.20878	1.28369	0.00357	0.04789	—	0.04789	0.04406	—	0.04406	—	386.138	386.138	0.01566	0.00313	—	387.463
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03551	0.02984	0.22060	0.23427	0.00065	0.00874	—	0.00874	0.00804	—	0.00804	—	63.9295	63.9295	0.00259	0.00052	—	64.1489
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27007	0.22873	0.40455	6.78197	0.00000	0.00000	4.57039	4.57039	0.00000	0.62062	0.62062	—	1,349.53	1,349.53	0.04354	0.04079	0.12579	1,362.90
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00488	0.00409	0.00929	0.10623	0.00000	0.00000	0.08655	0.08655	0.00000	0.01178	0.01178	—	24.4217	24.4217	0.00085	0.00078	0.04021	24.7162
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00089	0.00075	0.00170	0.01939	0.00000	0.00000	0.01579	0.01579	0.00000	0.00215	0.00215	—	4.04330	4.04330	0.00014	0.00013	0.00666	4.09205
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2. Project Cleanup (2028)

3.2.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	9.54346	8.01916	56.7205	65.8187	0.17553	2.27996	—	2.27996	2.09756	—	2.09756	—	19,006.7	19,006.7	0.77099	0.15420	—	19,071.9
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18303	0.15379	1.08779	1.26228	0.00337	0.04373	—	0.04373	0.04023	—	0.04023	—	364.512	364.512	0.01479	0.00296	—	365.763
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03340	0.02807	0.19852	0.23037	0.00061	0.00798	—	0.00798	0.00734	—	0.00734	—	60.3491	60.3491	0.00245	0.00049	—	60.5562
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19742	0.16072	0.29316	5.28035	0.00000	0.00000	4.11335	4.11335	0.00000	0.55855	0.55855	—	1,169.93	1,169.93	0.03869	0.03621	0.09385	1,181.78
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00370	0.00348	0.17514	0.03232	0.00093	0.00269	0.30168	0.30437	0.00269	0.03641	0.03910	—	129.574	129.574	0.00009	0.02002	0.00520	135.546
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00358	0.00286	0.00633	0.08232	0.00000	0.00000	0.07789	0.07789	0.00000	0.01060	0.01060	—	21.1764	21.1764	0.00009	0.00070	0.03000	21.4183
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00007	0.00007	0.00340	0.00061	0.00002	0.00005	0.00570	0.00575	0.00005	0.00069	0.00074	—	2.48398	2.48398	< 0.000005	0.00038	0.00166	2.60008
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00065	0.00052	0.00115	0.01502	0.00000	0.00000	0.01422	0.01422	0.00000	0.00193	0.00193	—	3.50599	3.50599	0.00001	0.00012	0.00497	3.54604
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00001	0.00001	0.00062	0.00011	< 0.000005	0.00001	0.00104	0.00105	0.00001	0.00013	0.00014	—	0.41125	0.41125	< 0.000005	0.00006	0.00027	0.43047

3.3. Grading (2026)

3.3.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	8.48354	7.12853	53.1451	56.7313	0.16855	2.07480	—	2.07480	1.90882	—	1.90882	—	18,249.4	18,249.4	0.74027	0.14805	—	18,312.0
Dust From Material Movement	—	—	—	—	—	—	4.12247	4.12247	—	1.30962	1.30962	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79025	0.66403	4.95050	5.28456	0.01570	0.19327	—	0.19327	0.17781	—	0.17781	—	1,699.94	1,699.94	0.06896	0.01379	—	1,705.78
Dust From Material Movement	—	—	—	—	—	—	0.38401	0.38401	—	0.12199	0.12199	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14422	0.12118	0.90347	0.96443	0.00287	0.03527	—	0.03527	0.03245	—	0.03245	—	281.445	281.445	0.01142	0.00228	—	282.411

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Dust From Material Movement	—	—	—	—	—	—	0.07008	0.07008	—	0.02226	0.02226	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21605	0.18298	0.32364	5.42558	0.00000	0.00000	3.65631	3.65631	0.00000	0.49649	0.49649	—	1,079.62	1,079.62	0.03483	0.03263	0.10063	1,090.32
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01898	0.01590	0.03610	0.41278	0.00000	0.00000	0.33629	0.33629	0.00000	0.04577	0.04577	—	94.8959	94.8959	0.00329	0.00304	0.15623	96.0400
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00346	0.00290	0.00659	0.07533	0.00000	0.00000	0.06137	0.06137	0.00000	0.00835	0.00835	—	15.7111	15.7111	0.00054	0.00050	0.02587	15.9005

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Electrical Work, Station Construction (2026)

3.4.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	10.6841	8.95595	62.8194	76.0416	0.23277	2.09424	—	2.09424	1.92670	—	1.92670	—	24,329.3	24,329.3	0.98690	0.19738	—	24,412.7
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73179	0.61342	4.30270	5.20833	0.01594	0.14344	—	0.14344	0.13197	—	0.13197	—	1,666.39	1,666.39	0.06760	0.01352	—	1,672.11
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Off-Road Equipment	0.13355	0.11195	0.78524	0.95052	0.00291	0.02618	—	0.02618	0.02408	—	0.02408	—	275.889	275.889	0.01119	0.00224	—	276.836
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.86119	4.11713	7.28187	122.075	0.00000	0.00000	82.2669	82.2669	0.00000	11.1711	11.1711	—	24,291.5	24,291.5	0.78374	0.73414	2.26420	24,532.1
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.07496	0.06967	3.74257	0.65874	0.01852	0.05379	6.03358	6.08737	0.05379	0.72811	0.78190	—	2,726.70	2,726.70	0.00176	0.43652	0.11829	2,856.94
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31393	0.26297	0.59729	6.82905	0.00000	0.00000	5.56367	5.56367	0.00000	0.75723	0.75723	—	1,569.97	1,569.97	0.05436	0.05028	2.58471	1,588.90
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00532	0.00495	0.25948	0.04433	0.00127	0.00368	0.40735	0.41103	0.00368	0.04926	0.05295	—	186.693	186.693	0.00012	0.02990	0.13474	195.740
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05729	0.04799	0.10900	1.24630	0.00000	0.00000	1.01537	1.01537	0.00000	0.13819	0.13819	—	259.926	259.926	0.00900	0.00833	0.42793	263.060
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Hauling	0.00097	0.00090	0.04736	0.00809	0.00023	0.00067	0.07434	0.07501	0.00067	0.00899	0.00966	—	30.9091	30.9091	0.00002	0.00495	0.02231	32.4070

3.5. Electrical Work, Station Construction (2027)

3.5.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	10.5257	8.82441	60.1723	75.9235	0.23271	1.92829	—	1.92829	1.77402	—	1.77402	—	24,322.8	24,322.8	0.98664	0.19733	—	24,406.2
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	10.5257	8.82441	60.1723	75.9235	0.23271	1.92829	—	1.92829	1.77402	—	1.77402	—	24,322.8	24,322.8	0.98664	0.19733	—	24,406.2
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	7.51837	6.30315	42.9802	54.2311	0.16622	1.37735	—	1.37735	1.26716	—	1.26716	—	17,373.4	17,373.4	0.70474	0.14095	—	17,433.0

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.37210	1.15032	7.84389	9.89717	0.03034	0.25137	—	0.25137	0.23126	—	0.23126	—	2,876.36	2,876.36	0.11668	0.02334	—	2,886.23
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.57349	3.14489	6.56757	114.119	0.00000	0.00000	82.2669	82.2669	0.00000	11.1711	11.1711	—	23,925.1	23,925.1	0.77382	0.72422	79.7437	24,240.0
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.08025	0.07408	3.53533	0.64110	0.01852	0.05291	6.03358	6.08649	0.05291	0.72811	0.78102	—	2,659.71	2,659.71	0.00176	0.41800	4.28755	2,788.61
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.74214	3.32347	6.57749	113.484	0.00000	0.00000	82.2669	82.2669	0.00000	11.1711	11.1711	—	23,832.8	23,832.8	0.77382	0.72422	2.06559	24,070.1
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.07408	0.06967	3.63145	0.66050	0.01852	0.05379	6.03358	6.08737	0.05379	0.72811	0.78190	—	2,661.44	2,661.44	0.00176	0.41888	0.11097	2,786.42
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Worker	2.70696	2.17549	5.71863	66.0088	0.00000	0.00000	58.0211	58.0211	0.00000	7.89681	7.89681	—	16,065.2	16,065.2	0.56690	0.52439	24.6140	16,260.2
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05543	0.05165	2.62602	0.46360	0.01323	0.03842	4.24807	4.28649	0.03842	0.51373	0.55215	—	1,900.31	1,900.31	0.00126	0.29920	1.31869	1,990.82
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.49402	0.39703	1.04365	12.0466	0.00000	0.00000	10.5889	10.5889	0.00000	1.44117	1.44117	—	2,659.77	2,659.77	0.09386	0.08682	4.07513	2,692.06
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01012	0.00943	0.47925	0.08461	0.00241	0.00701	0.77527	0.78229	0.00701	0.09376	0.10077	—	314.619	314.619	0.00021	0.04954	0.21832	329.604

3.6. Electrical Work, Station Construction (2028)

3.6.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	10.2867	8.62494	56.5996	75.5706	0.23281	1.74258	—	1.74258	1.60317	—	1.60317	—	24,333.1	24,333.1	0.98706	0.19741	—	24,416.6
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Off-Road Equipment	1.65071	1.38404	9.08252	12.1268	0.03736	0.27963	—	0.27963	0.25726	—	0.25726	—	3,904.72	3,904.72	0.15839	0.03168	—	3,918.12
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30125	0.25259	1.65756	2.21314	0.00682	0.05103	—	0.05103	0.04695	—	0.04695	—	646.471	646.471	0.02622	0.00524	—	648.689
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.94848	3.21434	5.86319	105.607	0.00000	0.00000	82.2669	82.2669	0.00000	11.1711	11.1711	—	23,398.6	23,398.6	0.77382	0.72422	1.87691	23,635.6
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.07408	0.06967	3.50270	0.64640	0.01852	0.05379	6.03358	6.08737	0.05379	0.72811	0.78190	—	2,591.47	2,591.47	0.00176	0.40036	0.10391	2,710.93
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.59859	0.47919	1.05867	13.7755	0.00000	0.00000	13.0349	13.0349	0.00000	1.77408	1.77408	—	3,543.80	3,543.80	0.01433	0.11781	5.01978	3,584.28

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01245	0.01160	0.56915	0.10189	0.00297	0.00849	0.95436	0.96285	0.00849	0.11541	0.12390	—	415.686	415.686	0.00028	0.06425	0.27723	435.116
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10924	0.08745	0.19321	2.51402	0.00000	0.00000	2.37887	2.37887	0.00000	0.32377	0.32377	—	586.716	586.716	0.00237	0.01950	0.83108	593.419
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00227	0.00212	0.10387	0.01859	0.00054	0.00155	0.17417	0.17572	0.00155	0.02106	0.02261	—	68.8216	68.8216	0.00005	0.01064	0.04590	72.0384

3.7. Solar Array Assembly and Erection (2026)

3.7.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17477	0.98642	9.26353	10.6079	0.02103	0.43157	—	0.43157	0.39704	—	0.39704	—	2,254.40	2,254.40	0.09145	0.01829	—	2,262.14
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Off-Road Equipment	0.08046	0.06756	0.63449	0.72657	0.00144	0.02956	—	0.02956	0.02719	—	0.02719	—	154.411	154.411	0.00626	0.00125	—	154.941
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01468	0.01233	0.11579	0.13260	0.00026	0.00539	—	0.00539	0.00496	—	0.00496	—	25.5645	25.5645	0.00104	0.00021	—	25.6523
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.86119	4.11713	7.28187	122.075	0.00000	0.00000	82.2669	82.2669	0.00000	11.1711	11.1711	—	24,291.5	24,291.5	0.78374	0.73414	2.26420	24,532.1
Vendor	0.03192	0.02624	0.72595	0.31316	0.00425	0.00779	2.29995	2.30774	0.00779	0.25446	0.26225	—	570.259	570.259	0.00461	0.07370	0.03595	592.373
Hauling	0.07496	0.06967	3.74257	0.65874	0.01852	0.05379	6.03358	6.08737	0.05379	0.72811	0.78190	—	2,726.70	2,726.70	0.00176	0.43652	0.11829	2,856.94
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31393	0.26297	0.59729	6.82905	0.00000	0.00000	5.56367	5.56367	0.00000	0.75723	0.75723	—	1,569.97	1,569.97	0.05436	0.05028	2.58471	1,588.90

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Vendor	0.00214	0.00175	0.05045	0.02123	0.00029	0.00053	0.15515	0.15569	0.00053	0.01719	0.01772	—	39.0473	39.0473	0.00034	0.00505	0.04084	40.6010
Hauling	0.00532	0.00495	0.25948	0.04433	0.00127	0.00368	0.40735	0.41103	0.00368	0.04926	0.05295	—	186.693	186.693	0.00012	0.02990	0.13474	195.740
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05729	0.04799	0.10900	1.24630	0.00000	0.00000	1.01537	1.01537	0.00000	0.13819	0.13819	—	259.926	259.926	0.00900	0.00833	0.42793	263.060
Vendor	0.00039	0.00032	0.00921	0.00387	0.00005	0.00010	0.02832	0.02841	0.00010	0.00314	0.00323	—	6.46473	6.46473	0.00006	0.00084	0.00676	6.72195
Hauling	0.00097	0.00090	0.04736	0.00809	0.00023	0.00067	0.07434	0.07501	0.00067	0.00899	0.00966	—	30.9091	30.9091	0.00002	0.00495	0.02231	32.4070

3.8. Solar Array Assembly and Erection (2027)

3.8.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11735	0.93818	8.67045	10.5594	0.02103	0.38269	—	0.38269	0.35208	—	0.35208	—	2,254.28	2,254.28	0.09144	0.01829	—	2,262.02
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11735	0.93818	8.67045	10.5594	0.02103	0.38269	—	0.38269	0.35208	—	0.35208	—	2,254.28	2,254.28	0.09144	0.01829	—	2,262.02

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79811	0.67013	6.19318	7.54244	0.01502	0.27335	—	0.27335	0.25148	—	0.25148	—	1,610.20	1,610.20	0.06532	0.01306	—	1,615.73
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14565	0.12230	1.13026	1.37649	0.00274	0.04989	—	0.04989	0.04590	—	0.04590	—	266.587	266.587	0.01081	0.00216	—	267.502
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.57349	3.14489	6.56757	114.119	0.00000	0.00000	82.2669	82.2669	0.00000	11.1711	11.1711	—	23,925.1	23,925.1	0.77382	0.72422	79.7437	24,240.0
Vendor	0.03156	0.02589	0.67172	0.28267	0.00425	0.00779	2.29995	2.30774	0.00779	0.25446	0.26225	—	556.981	556.981	0.00496	0.06980	1.25395	579.160
Hauling	0.08025	0.07408	3.53533	0.64110	0.01852	0.05291	6.03358	6.08649	0.05291	0.72811	0.78102	—	2,659.71	2,659.71	0.00176	0.41800	4.28755	2,788.61
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Worker	4.74214	3.32347	6.57749	113.484	0.00000	0.00000	82.2669	82.2669	0.00000	11.1711	11.1711	—	23,832.8	23,832.8	0.77382	0.72422	2.06559	24,070.1
Vendor	0.03156	0.02589	0.68874	0.29083	0.00425	0.00779	2.29995	2.30774	0.00779	0.25446	0.26225	—	557.290	557.290	0.00496	0.06980	0.03260	578.248
Hauling	0.07408	0.06967	3.63145	0.66050	0.01852	0.05379	6.03358	6.08737	0.05379	0.72811	0.78190	—	2,661.44	2,661.44	0.00176	0.41888	0.11097	2,786.42
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.70696	2.17549	5.71863	66.0088	0.00000	0.00000	58.0211	58.0211	0.00000	7.89681	7.89681	—	16,065.2	16,065.2	0.56690	0.52439	24.6140	16,260.2
Vendor	0.01900	0.01773	0.49954	0.20546	0.00304	0.00557	1.61804	1.62361	0.00557	0.17924	0.18481	—	397.937	397.937	0.00076	0.04986	0.38733	413.201
Hauling	0.05543	0.05165	2.62602	0.46360	0.01323	0.03842	4.24807	4.28649	0.03842	0.51373	0.55215	—	1,900.31	1,900.31	0.00126	0.29920	1.31869	1,990.82
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.49402	0.39703	1.04365	12.0466	0.00000	0.00000	10.5889	10.5889	0.00000	1.44117	1.44117	—	2,659.77	2,659.77	0.09386	0.08682	4.07513	2,692.06
Vendor	0.00347	0.00324	0.09117	0.03750	0.00055	0.00102	0.29529	0.29631	0.00102	0.03271	0.03373	—	65.8830	65.8830	0.00013	0.00825	0.06413	68.4102
Hauling	0.01012	0.00943	0.47925	0.08461	0.00241	0.00701	0.77527	0.78229	0.00701	0.09376	0.10077	—	314.619	314.619	0.00021	0.04954	0.21832	329.604

3.9. Solar Array Assembly and Erection (2028)

3.9.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Off-Road Equipment	1.07393	0.90170	8.14458	10.5569	0.02103	0.34790	—	0.34790	0.32007	—	0.32007	—	2,254.54	2,254.54	0.09145	0.01829	—	2,262.28
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17233	0.14470	1.30696	1.69406	0.00338	0.05583	—	0.05583	0.05136	—	0.05136	—	361.786	361.786	0.01468	0.00294	—	363.027
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03145	0.02641	0.23852	0.30917	0.00062	0.01019	—	0.01019	0.00937	—	0.00937	—	59.8977	59.8977	0.00243	0.00049	—	60.1033
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.9.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.94848	3.21434	5.86319	105.607	0.00000	0.00000	82.2669	82.2669	0.00000	11.1711	11.1711	—	23,398.6	23,398.6	0.77382	0.72422	1.87691	23,635.6

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Vendor	0.02695	0.02164	0.65543	0.26886	0.00425	0.00779	2.29995	2.30774	0.00779	0.25446	0.26225	—	542.704	542.704	0.00106	0.06980	0.02937	563.561
Hauling	0.07408	0.06967	3.50270	0.64640	0.01852	0.05379	6.03358	6.08737	0.05379	0.72811	0.78190	—	2,591.47	2,591.47	0.00176	0.40036	0.10391	2,710.93
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.59859	0.47919	1.05867	13.7755	0.00000	0.00000	13.0349	13.0349	0.00000	1.77408	1.77408	—	3,543.80	3,543.80	0.01433	0.11781	5.01978	3,584.28
Vendor	0.00421	0.00330	0.10677	0.04320	0.00068	0.00125	0.36351	0.36476	0.00125	0.04027	0.04152	—	87.0558	87.0558	0.00017	0.01120	0.07843	90.4765
Hauling	0.01245	0.01160	0.56915	0.10189	0.00297	0.00849	0.95436	0.96285	0.00849	0.11541	0.12390	—	415.686	415.686	0.00028	0.06425	0.27723	435.116
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10924	0.08745	0.19321	2.51402	0.00000	0.00000	2.37887	2.37887	0.00000	0.32377	0.32377	—	586.716	586.716	0.00237	0.01950	0.83108	593.419
Vendor	0.00077	0.00060	0.01949	0.00788	0.00012	0.00023	0.06634	0.06657	0.00023	0.00735	0.00758	—	14.4131	14.4131	0.00003	0.00185	0.01299	14.9794
Hauling	0.00227	0.00212	0.10387	0.01859	0.00054	0.00155	0.17417	0.17572	0.00155	0.02106	0.02261	—	68.8216	68.8216	0.00005	0.01064	0.04590	72.0384

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
User Defined Industrial	0.21899	0.20101	0.18455	1.78769	0.00427	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	—	433.569	433.569	0.01496	0.01564	1.27989	439.883
Total	0.21899	0.20101	0.18455	1.78769	0.00427	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	—	433.569	433.569	0.01496	0.01564	1.27989	439.883
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.23509	0.21709	0.18962	1.78393	0.00426	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	—	432.311	432.311	0.01500	0.01584	0.03319	437.441
Total	0.23509	0.21709	0.18962	1.78393	0.00426	0.00356	0.37307	0.37663	0.00335	0.09465	0.09800	—	432.311	432.311	0.01500	0.01584	0.03319	437.441
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.03178	0.02902	0.03102	0.24837	0.00062	0.00054	0.05620	0.05674	0.00051	0.01426	0.01477	—	56.7815	56.7815	0.00218	0.00229	0.07581	57.5948
Total	0.03178	0.02902	0.03102	0.24837	0.00062	0.00054	0.05620	0.05674	0.00051	0.01426	0.01477	—	56.7815	56.7815	0.00218	0.00229	0.07581	57.5948

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.04280	0.04280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01270	0.01270	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.05550	0.05550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.04280	0.04280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01270	0.01270	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.05550	0.05550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00781	0.00781	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00232	0.00232	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.01013	0.01013	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.48694	0.00166	—	12.6681
Total	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.48694	0.00166	—	12.6681
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.48694	0.00166	—	12.6681
Total	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.48694	0.00166	—	12.6681
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.08062	0.00027	—	2.09735
Total	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.08062	0.00027	—	2.09735

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	1.00243	0.00000	1.00243	0.10019	0.00000	—	3.50715
Total	—	—	—	—	—	—	—	—	—	—	—	1.00243	0.00000	1.00243	0.10019	0.00000	—	3.50715
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	1.00243	0.00000	1.00243	0.10019	0.00000	—	3.50715
Total	—	—	—	—	—	—	—	—	—	—	—	1.00243	0.00000	1.00243	0.10019	0.00000	—	3.50715
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.16596	0.00000	0.16596	0.01659	0.00000	—	0.58065
Total	—	—	—	—	—	—	—	—	—	—	—	0.16596	0.00000	0.16596	0.01659	0.00000	—	0.58065

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Road Construction	Site Preparation	10/1/2026	10/9/2026	5.00000	7.00000	—
Project Cleanup	Site Preparation	3/23/2028	3/31/2028	5.00000	7.00000	—
Grading	Grading	10/10/2026	11/26/2026	5.00000	34.0000	—
Electrical Work, Station Construction	Building Construction	11/27/2026	3/22/2028	5.00000	344.000	—
Solar Array Assembly and Erection	Building Construction	11/27/2026	3/22/2028	5.00000	344.000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Road Construction	Rubber Tired Dozers	Diesel	Average	3.00000	10.00000	367.000	0.40000

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Road Construction	Tractors/Loaders/ Backhoes	Diesel	Average	4.00000	10.00000	84.0000	0.37000
Road Construction	Rollers	Diesel	Average	1.000000	10.00000	36.0000	0.38000
Road Construction	Off-Highway Trucks	Diesel	Average	8.00000	10.00000	376.000	0.38000
Project Cleanup	Rubber Tired Dozers	Diesel	Average	3.00000	10.00000	367.000	0.40000
Project Cleanup	Tractors/Loaders/ Backhoes	Diesel	Average	4.00000	10.00000	84.0000	0.37000
Project Cleanup	Graders	Diesel	Average	1.000000	10.00000	148.000	0.41000
Project Cleanup	Off-Highway Trucks	Diesel	Average	7.00000	10.00000	376.000	0.38000
Grading	Excavators	Diesel	Average	2.00000	10.00000	36.0000	0.38000
Grading	Graders	Diesel	Average	1.000000	10.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	10.00000	367.000	0.40000
Grading	Scrapers	Diesel	Average	2.00000	10.00000	423.000	0.48000
Grading	Tractors/Loaders/ Backhoes	Diesel	Average	2.00000	10.00000	84.0000	0.37000
Grading	Off-Highway Trucks	Diesel	Average	6.00000	10.00000	376.000	0.38000
Electrical Work, Station Construction	Cranes	Diesel	Average	1.000000	10.00000	367.000	0.29000
Electrical Work, Station Construction	Forklifts	Diesel	Average	3.00000	10.00000	82.0000	0.20000
Electrical Work, Station Construction	Generator Sets	Diesel	Average	1.000000	10.00000	235.000	0.74000
Electrical Work, Station Construction	Tractors/Loaders/ Backhoes	Diesel	Average	3.00000	10.00000	84.0000	0.37000

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Electrical Work, Station Construction	Excavators	Diesel	Average	1.000000	10.00000	36.0000	0.38000
Electrical Work, Station Construction	Bore/Drill Rigs	Diesel	Average	1.000000	10.00000	83.0000	0.50000
Electrical Work, Station Construction	Trenchers	Diesel	Average	1.000000	10.00000	40.0000	0.50000
Electrical Work, Station Construction	Off-Highway Trucks	Diesel	Average	11.0000	10.00000	376.000	0.38000
Solar Array Assembly and Erection	Cranes	Diesel	Average	1.000000	10.00000	367.000	0.29000
Solar Array Assembly and Erection	Forklifts	Diesel	Average	3.00000	10.00000	82.0000	0.20000
Solar Array Assembly and Erection	Generator Sets	Diesel	Average	3.00000	4.00000	4.00000	0.74000
Solar Array Assembly and Erection	Other Construction Equipment	Diesel	Average	1.000000	10.00000	82.0000	0.42000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Road Construction	Worker	25.0000	70.0000	LDA,LDT1,LDT2
Road Construction	Vendor	0.00000	10.9800	HHDT,MHDT
Road Construction	Hauling	0.00000	20.0000	HHDT
Road Construction	Onsite truck	—	—	HHDT

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Project Cleanup	Worker	22.5000	70.0000	LDA,LDT1,LDT2
Project Cleanup	Vendor	—	10.9800	HHDT,MHDT
Project Cleanup	Hauling	2.00000	20.0000	HHDT
Project Cleanup	Onsite truck	—	—	HHDT
Grading	Worker	20.0000	70.0000	LDA,LDT1,LDT2
Grading	Vendor	—	10.9800	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Electrical Work, Station Construction	Worker	450.000	70.0000	LDA,LDT1,LDT2
Electrical Work, Station Construction	Vendor	0.00000	10.9800	HHDT,MHDT
Electrical Work, Station Construction	Hauling	40.0000	20.0000	HHDT
Electrical Work, Station Construction	Onsite truck	—	—	HHDT
Solar Array Assembly and Erection	Worker	450.000	70.0000	LDA,LDT1,LDT2
Solar Array Assembly and Erection	Vendor	16.1000	10.9800	HHDT,MHDT
Solar Array Assembly and Erection	Hauling	40.0000	20.0000	HHDT
Solar Array Assembly and Erection	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	89.0000	0.00000	0.00000

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00000	346.196	0.03300	0.00400
2027	0.00000	346.196	0.03300	0.00400
2028	0.00000	346.196	0.03300	0.00400

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
User Defined Industrial	32.0000	40.0000	32.0000	12,097.1	422.177	527.721	422.177	159,598

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
User Defined Industrial	Wood Fireplaces	0	0
User Defined Industrial	Gas Fireplaces	0	0
User Defined Industrial	Propane Fireplaces	0	0
User Defined Industrial	Electric Fireplaces	0	0
User Defined Industrial	No Fireplaces	0	0
User Defined Industrial	Conventional Wood Stoves	0	0
User Defined Industrial	Catalytic Wood Stoves	0	0
User Defined Industrial	Non-Catalytic Wood Stoves	0	0
User Defined Industrial	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0.00000	0.00000	3,000.00	1,000.000	—

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
User Defined Industrial	0.00000	346.196	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Industrial	355,468	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	1.86000	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

Equipment Type	Fuel Type
Generator	Propane

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	30.7600	annual days of extreme heat
Extreme Precipitation	0.00000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.08000	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	1	1	1	2
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—

Indicator	Result for Project Census Tract
AQ-Ozone	82.6882
AQ-PM	0.63472
AQ-DPM	0.03734
Drinking Water	67.2412
Lead Risk Housing	56.6100
Pesticides	15.1379
Toxic Releases	22.8807
Traffic	0.80000
Effect Indicators	—
CleanUp Sites	94.1209
Groundwater	60.4350
Haz Waste Facilities/Generators	96.5056
Impaired Water Bodies	72.1546
Solid Waste	99.7022
Sensitive Population	—
Asthma	34.7458
Cardio-vascular	34.0479
Low Birth Weights	8.14729
Socioeconomic Factor Indicators	—
Education	65.3252
Housing	24.4613

Indicator	Result for Project Census Tract
Linguistic	59.3720
Poverty	69.4849
Unemployment	35.0208

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	29.93712306
Employed	66.08494803
Median HI	9.611189529
Education	—
Bachelor's or higher	24.38085461
High school enrollment	100
Preschool enrollment	55.49852432
Transportation	—
Auto Access	24.21403824
Active commuting	95.95791095
Social	—
2-parent households	8.404978827
Voting	80.8931092

Indicator	Result for Project Census Tract
Neighborhood	—
Alcohol availability	71.43590402
Park access	59.21981265
Retail density	0.346464776
Supermarket access	48.04311562
Tree canopy	39.45848839
Housing	—
Homeownership	52.34184525
Housing habitability	68.98498653
Low-inc homeowner severe housing cost burden	77.56961376
Low-inc renter severe housing cost burden	87.12947517
Uncrowded housing	70.21686129
Health Outcomes	—
Insured adults	25.31759271
Arthritis	0.0
Asthma ER Admissions	56.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0

Indicator	Result for Project Census Tract
Diagnosed Diabetes	0.0
Life Expectancy at Birth	88.1
Cognitively Disabled	22.1
Physically Disabled	22.7
Heart Attack ER Admissions	15.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	63.1
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	41.8
Elderly	11.3
English Speaking	56.1

Indicator	Result for Project Census Tract
Foreign-born	12.7
Outdoor Workers	42.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	91.2
Traffic Density	0.3
Traffic Access	0.0
Other Indices	—
Hardship	57.0
Other Decision Support	—
2016 Voting	91.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	46.0000
Healthy Places Index Score for Project Location (b)	51.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Project Details	Based on project description provided by project sponsor
Land Use	Based on project description provided by project sponsor
Construction: Construction Phases	Based on project description provided by project sponsor
Construction: Off-Road Equipment	Based on project description provided by project sponsor.
Construction: Dust From Material Movement	The total acres graded was obtained from the Project Sponsor.
Construction: Trips and VMT	Daily vehicle trip rates are based on information provided by the project sponsor. Worker trip length reflects commuter distance from Las Vegas area.
Construction: On-Road Fugitive Dust	Percentages of travel on paved roads are based on a maximum distance of 0.25 miles on unpaved roads. The material silt content is based on the value used by GBUAPCD. The mean vehicle speed was adjusted to 15 mph to reflect the speed limit on the unpaved access road.

Screen	Justification
Operations: Vehicle Data	Trip rates represent travel by 8 full-time employees per the project description and conservatively assumes two round trips for disposal of hazardous and nonhazardous waste once per week. Defaults trip lengths and purpose from Appendix G for Inyo County were used.
Operations: Water and Waste Water	Indoor water use for the project's O&M building was calculated using the consumption of a 2,000 sqft general office building per CalEEMod Appendix G. The water for indoor use and outdoor use would be obtained from onsite wells per the project description. All wastewater would utilize an aboveground septic tank per the project description.
Operations: Solid Waste	Solid Waste Generation was calculated for the project's O&M building using the consumption of a 2,000 sqft general office building per CalEEMod Appendix G.

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	0.00000	2,380.00
Building Area	sq. ft	0.00000	2,000.00
Landscape Area	sq. ft	—	0.00000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Grading	Grading	Start Date	8/1/2087	10/10/2026
Grading	Grading	End Date	12/30/2146	11/26/2026
Grading	Grading	Work Days per Phase	15,500.0	34.0000

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Road Construction	Rubber Tired Dozers	Hours Per Day	8.00000	10.00000
Road Construction	Tractors/Loaders/Backhoes	Hours Per Day	8.00000	10.00000
Project Cleanup	Rubber Tired Dozers	Hours Per Day	8.00000	10.00000
Project Cleanup	Tractors/Loaders/Backhoes	Hours Per Day	8.00000	10.00000
Grading	Excavators	Hours Per Day	8.00000	10.00000
Grading	Graders	Hours Per Day	8.00000	10.00000
Grading	Rubber Tired Dozers	Hours Per Day	8.00000	10.00000
Grading	Scrapers	Hours Per Day	8.00000	10.00000
Grading	Tractors/Loaders/Backhoes	Hours Per Day	8.00000	10.00000
Electrical Work, Station Construction	Cranes	Hours Per Day	7.00000	10.00000
Electrical Work, Station Construction	Forklifts	Hours Per Day	8.00000	10.00000
Electrical Work, Station Construction	Generator Sets	Hours Per Day	8.00000	10.00000
Electrical Work, Station Construction	Generator Sets	Horsepower	14.0000	235.000
Electrical Work, Station Construction	Tractors/Loaders/Backhoes	Hours Per Day	7.00000	10.00000
Solar Array Assembly and Erection	Cranes	Hours Per Day	7.00000	10.00000
Solar Array Assembly and Erection	Forklifts	Hours Per Day	8.00000	10.00000
Solar Array Assembly and Erection	Generator Sets	Number per Day	1.000000	3.00000
Solar Array Assembly and Erection	Generator Sets	Hours Per Day	8.00000	4.00000
Solar Array Assembly and Erection	Generator Sets	Horsepower	14.0000	4.00000

8.4.4. Dust from Material Movement

Phase Name	Model Parameter	Units	Default Value	New Value
Grading	Total Acres Graded	acres	127.500	89.0000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Road Construction	Worker	One-Way Trips per Day	40.0000	25.0000
Road Construction	Worker	Miles per Trip	14.0900	70.0000
Project Cleanup	Worker	One-Way Trips per Day	37.5000	22.5000
Project Cleanup	Worker	Miles per Trip	14.0900	70.0000
Project Cleanup	Hauling	One-Way Trips per Day	0.00000	2.00000
Grading	Worker	One-Way Trips per Day	35.0000	20.0000
Grading	Worker	Miles per Trip	14.0900	70.0000
Electrical Work, Station Construction	Worker	One-Way Trips per Day	0.84000	450.000
Electrical Work, Station Construction	Worker	Miles per Trip	14.0900	70.0000
Electrical Work, Station Construction	Vendor	One-Way Trips per Day	0.32780	0.00000
Electrical Work, Station Construction	Hauling	One-Way Trips per Day	0.00000	40.0000
Solar Array Assembly and Erection	Worker	One-Way Trips per Day	0.84000	450.000
Solar Array Assembly and Erection	Worker	Miles per Trip	14.0900	70.0000
Solar Array Assembly and Erection	Vendor	One-Way Trips per Day	0.32780	16.1000
Solar Array Assembly and Erection	Hauling	One-Way Trips per Day	0.00000	40.0000

8.4.7. On-Road Fugitive Dust

Phase Name	Model Parameter	Units	Default Value	New Value
Road Construction	Worker Trip Paved	%	100.0000	99.6400
Road Construction	Vendor Trip Paved	%	100.0000	97.7000
Road Construction	Hauling Trip Paved	%	100.0000	98.7500
Road Construction	Material Silt Content	%	8.50000	5.00000
Road Construction	Mean Vehicle Speed	mph	40.0000	15.0000
Project Cleanup	Worker Trip Paved	%	100.0000	99.6400
Project Cleanup	Vendor Trip Paved	%	100.0000	97.7000
Project Cleanup	Hauling Trip Paved	%	100.0000	98.7500
Project Cleanup	Material Silt Content	%	8.50000	5.00000
Project Cleanup	Mean Vehicle Speed	mph	40.0000	15.0000
Grading	Worker Trip Paved	%	100.0000	99.6400
Grading	Vendor Trip Paved	%	100.0000	97.7000
Grading	Hauling Trip Paved	%	100.0000	98.7500
Grading	Material Silt Content	%	8.50000	5.00000
Grading	Mean Vehicle Speed	mph	40.0000	15.0000
Electrical Work, Station Construction	Worker Trip Paved	%	100.0000	99.6400
Electrical Work, Station Construction	Vendor Trip Paved	%	100.0000	97.7000
Electrical Work, Station Construction	Hauling Trip Paved	%	100.0000	98.7500
Electrical Work, Station Construction	Material Silt Content	%	8.50000	5.00000
Electrical Work, Station Construction	Mean Vehicle Speed	mph	40.0000	15.0000
Solar Array Assembly and Erection	Worker Trip Paved	%	100.0000	99.6400

Phase Name	Model Parameter	Units	Default Value	New Value
Solar Array Assembly and Erection	Vendor Trip Paved	%	100.0000	97.7000
Solar Array Assembly and Erection	Hauling Trip Paved	%	100.0000	98.7500
Solar Array Assembly and Erection	Material Silt Content	%	8.50000	5.00000
Solar Array Assembly and Erection	Mean Vehicle Speed	mph	40.0000	15.0000

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
User Defined Industrial	Weekday Trip Rate	size/day	0.00000	16.0000
User Defined Industrial	Saturday Trip Rate	size/day	0.00000	20.0000
User Defined Industrial	Sunday Trip Rate	size/day	0.00000	16.0000
User Defined Industrial	Res H-W Trip Length	miles	0.00000	16.0100
User Defined Industrial	Res H-S Trip Length	miles	0.00000	12.1400
User Defined Industrial	Res H-O Trip Length	miles	0.00000	14.6700
User Defined Industrial	Non-Res H-W Trip Length	miles	32.7914	14.0900
User Defined Industrial	Non-Res W-O Trip Length	miles	32.5907	10.9800
User Defined Industrial	Non-Res O-O Trip Length	miles	32.5297	10.5900
User Defined Industrial	Res H-W Trip	%	0.00000	32.3200
User Defined Industrial	Res H-S Trip	%	0.00000	12.1200

Land Use	Model Parameter	Units	Default Value	New Value
User Defined Industrial	Res H-O Trip	%	0.00000	55.5600
User Defined Industrial	Non-Res H-W Trip	%	18.4082	27.0000
User Defined Industrial	Non-Res W-O Trip	%	12.4607	14.0000
User Defined Industrial	Non-Res O-O Trip	%	69.1311	59.0000

8.5.4. Water and Waste Water

Land Use	Model Parameter	Units	Default Value	New Value
User Defined Industrial	Indoor Water	gal/year	0.00000	355,468
User Defined Industrial	Electricity Intensity Factor to Supply	kWh/Mgal	1,953.07	0.00000
User Defined Industrial	Electricity Intensity Factor to Treat	kWh/Mgal	748.242	0.00000
User Defined Industrial	Electricity Intensity Factor to Distribute	kWh/Mgal	1,537.28	0.00000
User Defined Industrial	Electricity Intensity Factor for Waste Treatment	kWh/Mgal	1,519.36	0.00000
User Defined Industrial	Treated by Septic Tank	%	10.3300	100.0000
User Defined Industrial	Treated by Aerobic Processes	%	87.4600	0.00000
User Defined Industrial	Treated by Facultative Lagoons	%	2.21000	0.00000

8.5.5. Solid Waste

Land Use	Model Parameter	Units	Default Value	New Value
User Defined Industrial	Solid Waste Generation Rate	ton/user defined unit/yr	0.00000	1.86000

APPENDIX B EMISSION CALCULATIONS

Table B1: O&M Building CalEEMod Inputs
Bonanza Peak Energy Project
Inyo County, CA

O&M Building Square Footage	General Office Building Water Use Rate[1]	O&M Building Water Use	General Office Building Solid Waste Disposal Rate[2]	O&M Building Solid Waste Generation
1,000 sqft	**gal/yr/1,000 sqft**	**gal/yr**	**ton/yr/1,000 sqft**	**ton/yr**
2	177,734	355,468	0.93	1.86

Notes:

1. Table G-31 of CalEEMod Appendix G
2. Table G-36 of CalEEMod Appendix G

Abbreviations:

gal - gallon(s)
O&M - operation and maintenance
sqft - square feet
ton - short ton(s)
yr - year

References:

California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod®), Version 2022.1.1.29. Available online at: http://www.caleemod.com/

Table B2: Propane Generator Emissions
Bonanza Peak Energy Project
Inyo County, CA

Propane Generator Operating Parameters

Fuel Consumption @ 100% Load[1]	4	gal/hr
Operating hours	100	hr/yr
Annual Fuel Consumption	400	gal/yr

Propane Generator CAP & GHG Emissions

VOC	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2e
Emission Factor[2,3]									
lb/1000 gal						**kg/MMBtu**			
83.00	139.00	129.00	0.35	5.00	5.00	62.87	3.0E-03	6.0E-04	63.12
Annual Emissions[4]									
ton/yr									
0.017	0.028	0.026	7.00E-05	0.001	0.001	0.5	2.48E-05	4.95E-06	0.5

Propane Generator TAC Emissions

Pollutant	Emission Factor[5]	Hourly Emissions[6]	Annual Emissions[4]
	lb/1000 gal	lb/hr	lb/yr
Acetaldehyde	0.76	3.03E-03	3.03E-01
Acrolein	0.70	2.82E-03	2.82E-01
Ammonia	0.30	1.20E-03	1.20E-01
Benzene	0.18	7.10E-04	7.10E-02
1,3-Butadiene	0.074	2.97E-04	2.97E-02
Carbon Tetrachloride	0.005	2.20E-05	2.20E-03
Chloroform	0.004	1.70E-05	1.70E-03
Chrysene	6.27E-05	2.51E-07	2.51E-05
Ethyl Benzene	0.01	3.91E-05	3.91E-03
Ethylene Dibromide	0.007	2.66E-05	2.66E-03
Ethylene Dichloride	0.004	1.53E-05	1.53E-03
Formaldehyde	5.0	2.00E-02	2.00E+00
n-Hexane	0.10	4.00E-04	4.00E-02
Methanol	0.28	1.11E-03	1.11E-01
Methylene Chloride	0.01	5.32E-05	5.32E-03
Naphthalene	0.009	3.52E-05	3.52E-03
PAHs (excl. naphthalene)	0.013	5.16E-05	5.16E-03
Styrene	0.005	1.98E-05	1.98E-03
1,1,2,2-Tetrachloroethane	0.006	2.40E-05	2.40E-03
Toluene	0.087	3.49E-04	3.49E-02
1,1,2-Trichloroethane	0.005	1.91E-05	1.91E-03
1,2,4-Trimethylbenzene	0.010	4.00E-05	4.00E-03
Vinyl Chloride	0.002	8.96E-06	8.96E-04
Xylenes	0.024	9.72E-05	9.72E-03

Table B2: Propane Generator Emissions
Bonanza Peak Energy Project
Inyo County, CA

Notes:

1. Fuel Consumption is assumed based on generic specifications for an approximately 20 kW propane generator.
2. CAP emission factors are sourced from SCAQMD's "Combustion Default Emission Factors" guidance document revised in December 2024.
3. GHG emission factors are sourced from the Code of Federal Regulations Title 40, Part 98, Subpart C, Tables C-1 and C-2, Default Emission Factors for Various Types of Fuel.
4. Annual Emissions are based on the annual fuel consumption assuming continuous operation throughout the year.
5. TAC Emission Factors are based on Santa Barbara County Air Pollution Control District Approved Emission Factors for a propane engine.
6. Hourly TAC Emissions are calculated based on the Fuel Consumption rate.

Abbreviations:

CAP - criteria air pollutant
CO - carbon monoxide
CO2 - carbon dioxide
CO2e - carbon dioxide equivalents
CH4 - methane
gal - gallon(s)
GHG - greenhouse gas
hr - hour
kg - kilogram(s)
kW - kilowatt(s)
lb - pound(s)
MMBtu - million British thermal units
N2O - nitrous oxide
NOx - oxides of nitrogen
PM10 - coarse particulate matter
PM2.5 - fine particulate matter
SCAQMD - South Coast Air Quality Management District
SOx - oxides of sulfur
TAC - toxic air contaminant
ton - short ton(s)
VOC - volatile organic compound
yr - year

References:

SCAQMD. Combustion default emission factors (Revised December 2024). Available online at: https://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/combustion-default-emission-factors-2024.pdf?sfvrsn=9

Environmental Protection Agency. 40 CFR Part 98 Subpart C – General Stationary Fuel Combustion Sources. Electronic Code of Federal Regulations. Available online at: https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-98/subpart-C

Santa Barbara County Air Pollution Control District. SBCAPCD-approved TAC emission factors [Excel spreadsheet]. Available online at: https://www.ourair.org/wp-content/uploads/SBCAPCD-Approved-TAC-Emission-Factors.xlsx

Conversions:

2,000	lb/ton
0.091	MMBtu/gal
2.2	kg/lb

Table B3: Conctruction Worker Vehicle Emissions
Bonanza Peak Energy Project
Inyo County, CA

Construction Worker Vehicle Emissions Summary

Pollutant	Maximum Daily Construction Emissions	Maximum Annual Construction Emissions
	lb/day	ton/yr
Oxides of Sulfur (SOx)	0.45	0.058
Total Particulate Matter (PM10)	0.80	0.10
Total Particulate Matter (PM2.5)	0.88	0.11

Note:
1. Construction worker vehicle emissions are calculated based on 450 round trips per day and a distance of 70 miles per one-way trip reflecting the commuter distance from Las Vegas. Emission factors are from the EMFAC model for LDA, LDT1 and LDT2.

Abbreviations:
lb/day - pounds per day
ton/yr - tons per year

Construction Worker Vehicle Travel Assumptions

Item	Value	Unit
One-way Trips per Day	900	trips/day [1]
Maximum Construction Work Days	261	days/year
LDA Percentage of Fleet Mix	25%	
LDT1 Percentage of Fleet Mix	50%	
LDT2 Percentage of Fleet Mix	25%	
Construction Area to Las Vegas	70	miles (one-way)

Notes:
1. One-way trips per day assumes 900 one-way trips, equivalent to 450 round trips.

Table B3: Conctruction Worker Vehicle Emissions
Bonanza Peak Energy Project
Inyo County, CA

Emission Factors

Vehicle Type	Emission Factor Description	Unit	SOx	PM10	PM2.5
LDA	Running exhaust	g/mile	2.56E-03	1.28E-03	1.18E-03
LDA	Tire and brake wear	g/mile	-	-	4.13E-03
LDA	Start exhaust	g/trip	6.22E-04	1.91E-03	1.75E-03
LDT1	Running exhaust	g/mile	3.43E-03	2.37E-03	2.18E-03
LDT1	Tire and brake wear	g/mile	-	-	4.80E-03
LDT1	Start exhaust	g/trip	8.98E-04	3.62E-03	3.33E-03
LDT2	Running exhaust	g/mile	3.41E-03	1.70E-02	1.29E-03
LDT2	Tire and brake wear	g/mile	-	-	4.65E-03
LDT2	Start exhaust	g/trip	8.31E-04	2.08E-03	1.91E-03

Source: EMFAC 2021.v1.0.2

Emission Calculations

Vehicle Type	SOx	PM10	PM2.5	SOx	PM10	PM2.5
	lb/day			ton/yr		
LDA	0.089	0.05	0.19	0.012	0.006	0.024
LDT1	0.24	0.17	0.49	0.031	0.022	0.064
LDT2	0.12	0.59	0.21	0.016	0.077	0.027
Total	**0.45**	**0.80**	**0.88**	**0.06**	**0.10**	**0.11**

Notes:

1. Assumes 25% LDA, 50% LDT1, and 25% LDT2 per CalEEMod 2022 Appendix C

Abbreviations:

PM10 - coarse particulate matter
PM2.5 - fine particulate matter
SOx - oxides of sulfur
lb/day - pounds per day
ton/yr - tons per year

Conversions

453.592	grams/lb

Table B4: Project Emissions Summary
Bonanza Peak Energy Project
Inyo County, CA

Pollutant	Maximum Daily Construction Emissions	Maximum Annual Construction Emissions	Operational Emissions	Annual Operational Threshold[1]	Annual Operational Threshold Exceeded?
	lb/day	ton/yr	ton/yr		
Greenhouse Gases (CO2e)	82,045	10,211	67	100,000	No
Carbon Monoxide (CO)	332	36	0.27	100	No
Oxides of Nitrogen (NOx)	95	12	0.06	25	No
Volatile Organic Compounds (VOC)	18	2.1	0.06	25	No
Oxides of Sulfur (SOx)	0.74	0.10	6.9E-04	25	No
Total Particulate Matter (PM10)	182	23	0.06	15	No
Total Particulate Matter (PM2.5)	27	3.5	0.02	12	No

Notes:

1. Thresholds are taken MDAQMD's guidance. Because the project would not emit Hydrogen Sulfide or Lead, the respective thresholds for those pollutants are not included in this comparison.

Abbreviations:

lb - pound(s) ton - short ton(s) yr - year

References:

California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod®), Version 2022.1.1.29. Available online at: http://www.caleemod.com/

Mojave Desert Air Quality Management District (MDAQMD). February 2020. California Environmental Quality Act (CEQA) And Federal Conformity Guidelines. Available online at: https://www.mdaqmd.ca.gov/rules/overview#docaccess-7b21c5aafa1366cf6324c84cab07a19ae820271b692265c4a3ff53b327183a9b

Conversions:

1.102 ton/MT

Table B5: Health Risk Screening Inputs
Bonanza Peak Energy Project
Inyo County, CA

Pollutant[1]	Maximum Hourly Emissions	Annual Emissions
	lb/hr	lb/yr
Acetaldehyde	3.03E-03	3.03E-01
Acrolein	2.82E-03	2.82E-01
Ammonia	1.20E-03	1.20E-01
Benzene	7.10E-04	7.10E-02
1,3-Butadiene	2.97E-04	2.97E-02
Carbon Tetrachloride	2.20E-05	2.20E-03
Chloroform	1.70E-05	1.70E-03
Chrysene	2.51E-07	2.51E-05
Diesel Particulate Matter (DPM)	3.44E-01	8.42E+02
Ethyl Benzene	3.91E-05	3.91E-03
Ethylene Dibromide	2.66E-05	2.66E-03
Ethylene Dichloride	1.53E-05	1.53E-03
Formaldehyde	2.00E-02	2.00E+00
n-Hexane	4.00E-04	4.00E-02
Methanol	1.11E-03	1.11E-01
Methylene Chloride	5.32E-05	5.32E-03
Naphthalene	3.52E-05	3.52E-03
PAHs (excl. naphthalene)	5.16E-05	5.16E-03
Styrene	1.98E-05	1.98E-03
1,1,2,2-Tetrachloroethane	2.40E-05	2.40E-03
Toluene	3.49E-04	3.49E-02
1,1,2-Trichloroethane	1.91E-05	1.91E-03
1,2,4-Trimethylbenzene	4.00E-05	4.00E-03
Vinyl Chloride	8.96E-06	8.96E-04
Xylenes	9.72E-05	9.72E-03

Table B5: Health Risk Screening Inputs

Bonanza Peak Energy Project

Inyo County, CA

Notes:

1. Diesel particulate matter emissions are based on CalEEMod outputs for the maximum annual emissions, the maximum daily emissions of PM10 exhaust and 10 hours of operation per day. All other emissions are calculated according to Table B2.

Abbreviations:

lb - pound(s) ton - short ton(s) yr - year

References:

California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod®), Version 2022.1.1.29. Available online at: http://www.caleemod.com/

Conversions:

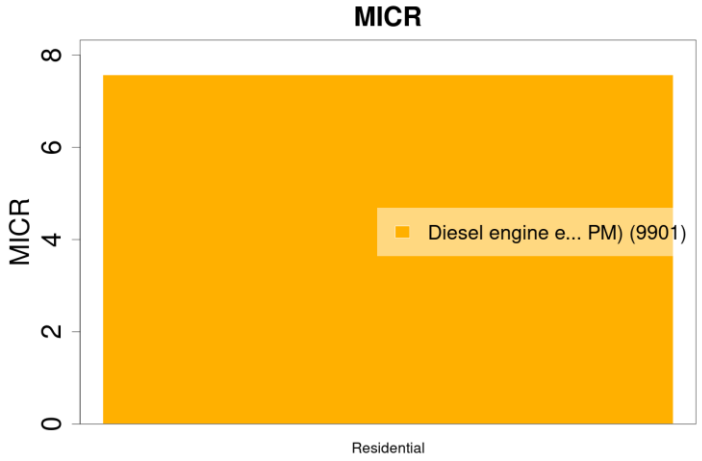
2000	lb/ton

APPENDIX C HRA SCREENING TOOL OUTPUTS

Description	Value
Date & time files saved	2025-11-25 16:25:03
Facility Name	Facility
Deemed complete date	2025-07-10
Facility type selected	General Non-Combustion Point Source Equipment
Equipment characteristics selected	14 ≤ Stack Height < 25 ft
Project duration	2 yrs
Hours of operation per day	24
Days of operation per week	7
Residential receptor distance	1000
School receptor distance	0
Worker receptor distance	0
Meteorological station selected	KTRM

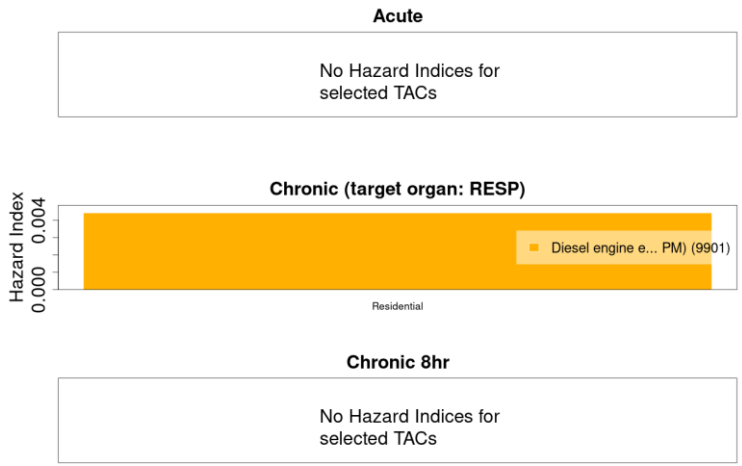
Toxic Air Contaminant (CAS No)	Max hourly ER, lb/hr	Max annual ER, lb/yr
Diesel engine exhaust, particulate matter (Diesel PM) (9901)	0.34	842

Receptor	Annual mean conc of Diesel engine exhaust, particulate matter (Diesel PM) (9901) (µg/m³) from General Non-Combustion Point Source Equipment with 14 ≤ Stack Height < 25 ft at KTRM	MICR from Diesel engine exhaust, particulate matter (Diesel PM) (9901), per million	MICR, per million	Cancer Burden	HQ|Chronic	HQ|Chronic 8hr	Max hourly conc of Diesel engine exhaust, particulate matter (Diesel PM) (9901) (µg/m³) from General Non-Combustion Point Source Equipment with 14 ≤ Stack Height < 25 ft	HQ|Acute
Residential	0.0221	7.57	7.57	0.410	4.42E-03		3.02	



Receptor	MICR, per million	Cancer Burden	HQ|Chronic	HQ|Chronic 8hr	HQ|Acute
Residential	7.57	0.410	4.42E-03		

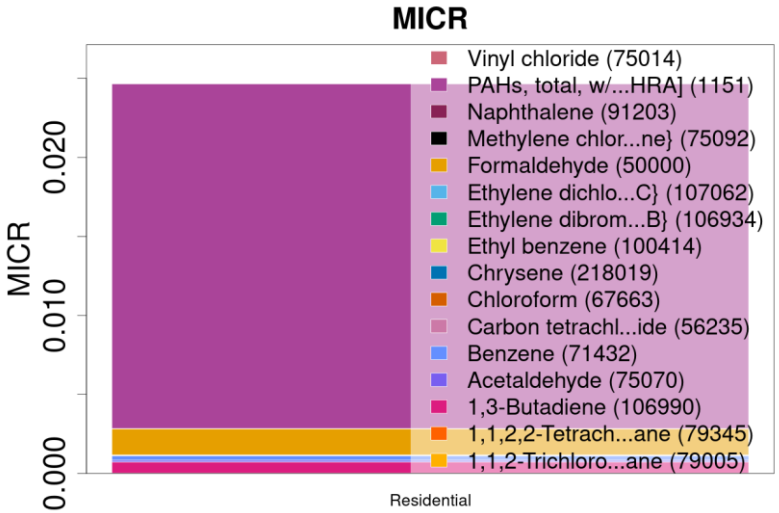
Toxic Air Contaminant (CAS No)	Contribution_to_total	maxImpacted_targetOrgan	ReceptorType	Acute REL ug/m3	Chronic REL ug/m3	Chronic 8hr REL ug/m3
Diesel engine exhaust, particulate matter (Diesel PM) (9901)	0.004419658	RESP	HI Residential|Chronic			5



Description	Value
Date & time files saved	2025-11-25 14:21:22
Facility Name	Facility
Deemed complete date	2025-04-07
Facility type selected	Natural Gas Reciprocating Internal Combustion Engines
Equipment characteristics selected	50 < Rating ≤ 75 BHP
Project duration	30 yrs (25 yrs for workers)
Hours of operation per day	24
Days of operation per week	7
Residential receptor distance	800
School receptor distance	0
Worker receptor distance	0
Meteorological station selected	KTRM

Toxic Air Contaminant (CAS No)	Max hourly ER, lb/hr	Max annual ER, lb/yr
Acetaldehyde (75070)	0.00303	0.303
Acrolein (107028)	0.00282	0.282
Ammonia (7664417)	0.0012	0.12
Benzene (71432)	0.00071	0.071
1,3-Butadiene (106990)	0.000297	0.0297
Carbon tetrachloride (56235)	0.000022	0.0022
Chloroform (67663)	0.000017	0.0017
Chrysene (218019)	0.000000251	0.0000251
Ethyl benzene (100414)	0.0000391	0.00391
Ethylene dibromide {EDB} (106934)	0.0000266	0.00266
Ethylene dichloride {EDC} (107062)	0.0000153	0.00153
Formaldehyde (50000)	0.02	2
Hexane (110543)	0.0004	0.04
Methanol (67561)	0.00111	0.111
Methylene chloride {Dichloromethane} (75092)	0.0000532	0.00532
Naphthalene (91203)	0.0000352	0.00352
PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA] (1151)	0.0000516	0.00516
Styrene (100425)	0.0000198	0.00198
1,1,2,2-Tetrachloroethane (79345)	0.000024	0.0024
Toluene (108883)	0.000349	0.0349
1,1,2-Trichloroethane (79005)	0.0000191	0.00191
1,2,4-Trimethylbenzene (95636)	0.00004	0.004
Vinyl chloride (75014)	0.00000896	0.000896
Xylenes (mixed) (1330207)	0.0000972	0.00972

Receptor	Annual mean conc of 1,1,2-Trichloroethane (79005) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of 1,1,2,2-Tetrachloroethane (79345) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of 1,2,4-Trimethylbenzene (95636) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of 1,3-Butadiene (106990) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Acetaldehyde (75070) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Acrolein (107028) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Ammonia (7664417) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Benzene (71432) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Carbon tetrachloride (56235) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM
Residential	1.1117E-07	1.3969E-07	2.32816E-07	1.72866E-06	1.76358E-05	1.64135E-05	6.98448E-06	4.13248E-06	1.28049E-07



Annual mean conc of Chloroform (67663) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Chrysene (218019) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Ethyl benzene (100414) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Ethylene dibromide {EDB} (106934) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Ethylene dichloride {EDC} (107062) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Formaldehyde (50000) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Hexane (110543) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Methanol (67561) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Methylene chloride {Dichloromethane} (75092) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM
9.89468E-08	1.46092E-09	2.27578E-07	1.54823E-07	8.90521E-08	0.000116408	2.32816E-06	6.46064E-06	3.09645E-07

Annual mean conc of Naphthalene (91203) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	total, w/o individ. components reported [Treated as B(a)P for HRA] (1151) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at	Annual mean conc of Styrene (100425) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Toluene (108883) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Vinyl chloride (75014) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	Annual mean conc of Xylenes (mixed) (1330207) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP at KTRM	MICR from 1,1,2-Trichloroethane (79005), per million	MICR from 1,1,2,2-Tetrachloroethane (79345), per million	MICR from 1,2,4-Trimethylbenzene (95636), per million	MICR from 1,3-Butadiene (106990), per million	MICR from Acetaldehyde (75070), per million	MICR from Acrolein (107028), per million
2.04878E-07	3.00333E-07	1.15244E-07	2.03132E-06	5.21508E-08	5.65743E-07	4.29246E-06	1.89251E-05		0.000702596	0.000119465	

MICR from Ammonia (7664417), per million	MICR from Benzene (71432), per million	MICR from Carbon tetrachloride (56235), per million	MICR from Chloroform (67663), per million	MICR from Chrysene (218019), per million	MICR from Ethyl benzene (100414), per million	MICR from Ethylene dibromide {EDB} (106934), per million	MICR from Ethylene dichloride {EDC} (107062), per million	MICR from Formaldehyde (50000), per million	MICR from Hexane (110543), per million	MICR from Methanol (67561), per million	MICR from Methylene chloride {Dichloromethane} (75092), per million	MICR from Naphthalene (91203), per million	MICR from PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA] (1151), per million	MICR from Styrene (100425), per million
	0.000279934	1.3011E-05	1.2735E-06	1.06096E-06	1.3412E-06	2.62192E-05	4.34332E-06	0.00165595			7.34138E-07	1.66541E-05	0.021810963	

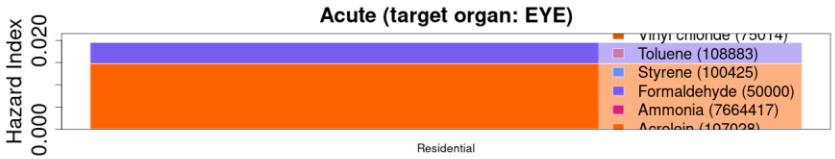
MICR from Toluene (108883), per million	MICR from Vinyl chloride (75014), per million	MICR from Xylenes (mixed) (1330207), per million	MICR, per million	HI|Chronic	HI|Chronic 8hr	Max hourly conc of 1,1,2-Trichloroethane (79005) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of 1,1,2,2-Tetrachloroethane (79345) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of 1,2,4-Trimethylbenzene (95636) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of 1,3-Butadiene (106990) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Acetaldehyde (75070) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Acrolein (107028) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP
	9.53827E-06		0.024666302	6.00145E-05	3.64409E-05	0.000249	0.000313	0.000522	0.00388	0.0395	0.0368

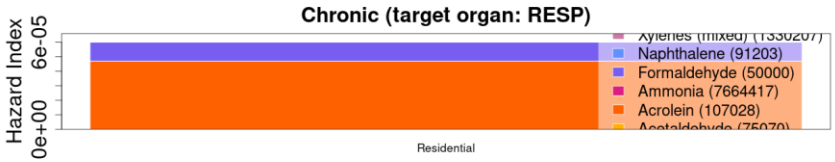
Max hourly conc of Ammonia (7664417) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Benzene (71432) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Carbon tetrachloride (56235) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Chloroform (67663) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Chrysene (218019) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Ethyl benzene (100414) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Ethylene dibromide {EDB} (106934) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Ethylene dichloride {EDC} (107062) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Formaldehyde (50000) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP
0.0157	0.00927	0.000287	0.000222	0.00000328	0.00051	0.000347	0.0002	0.261

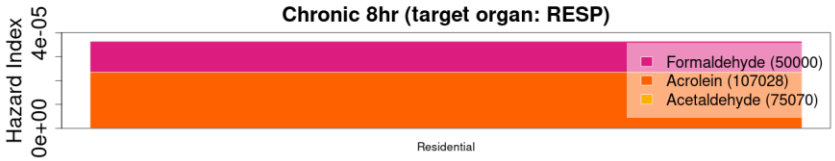
Max hourly conc of Hexane (110543) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Methanol (67561) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Methylene chloride {Dichloromethane} (75092) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Naphthalene (91203) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA] (1151) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Styrene (100425) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Toluene (108883) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Vinyl chloride (75014) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	Max hourly conc of Xylenes (mixed) (1330207) (µg/m³) from Natural Gas Reciprocating Internal Combustion Engines with 50 < Rating ≤ 75 BHP	HI | Acute
0.00522	0.0145	0.000694	0.000459	0.000673	0.000258	0.00455	0.000117	0.00127	0.0196

Receptor	MICR, per million	HI|Chronic	HI|Chronic 8hr	HI|Acute
Residential	0.02	6.00E-05	3.64E-05	0.02

Toxic Air Contaminant (CAS No)	Contribution_to_total	maxImpacted_targetOrgan	ReceptorType	Acute REL ug/m3	Chronic REL ug/m3	Chronic 8hr REL ug/m3
Acetaldehyde (75070)	8.41E-05	EYE	HI Residential|Acute	470	140	300
Acrolein (107028)	0.0147	EYE	HI Residential|Acute	2.5	0.35	0.7
Ammonia (7664417)	4.89E-06	EYE	HI Residential|Acute	3200	200	
Formaldehyde (50000)	0.00475	EYE	HI Residential|Acute	55	9	9
Styrene (100425)	1.23E-08	EYE	HI Residential|Acute	21000	900	
Toluene (108883)	9.11E-07	EYE	HI Residential|Acute	5000	420	830
Vinyl chloride (75014)	6.50E-10	EYE	HI Residential|Acute	180000		
Xylenes (mixed) (1330207)	5.77E-08	EYE	HI Residential|Acute	22000	700	
Acetaldehyde (75070)	1.26E-07	RESP	HI Residential|Chronic	470	140	300
Acrolein (107028)	4.69E-05	RESP	HI Residential|Chronic	2.5	0.35	0.7
Ammonia (7664417)	3.49E-08	RESP	HI Residential|Chronic	3200	200	
Formaldehyde (50000)	1.29E-05	RESP	HI Residential|Chronic	55	9	9
Naphthalene (91203)	2.28E-08	RESP	HI Residential|Chronic		9	
Xylenes (mixed) (1330207)	8.08E-10	RESP	HI Residential|Chronic	22000	700	
Acetaldehyde (75070)	5.88E-08	RESP	HI Residential|Chronic 8hr	470	140	300
Acrolein (107028)	2.34E-05	RESP	HI Residential|Chronic 8hr	2.5	0.35	0.7
Formaldehyde (50000)	1.29E-05	RESP	HI Residential|Chronic 8hr	55	9	9







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